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Annual Catalogue and Price List

for 1913

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STECHER CO. ROCHESTER, N.Y.

**Vogeler Seed Co.
Salt Lake City, Utah**

TO THE TRADE

Our Terms are Strictly Cash with the Order

We do not send C. O. D., as the cost of collecting return charges is quite an unnecessary item of expense, and the prices being given, we can conceive of no necessity to warrant goods being so sent.

WHEN TO ORDER

We endeavor, when placing our catalogue in the hands of our regular customers, early in January, to have our stock of seeds, etc., complete in every respect; and those of our patrons who favor us with their orders at an early date are sure of receiving prompt attention, and assist us in reducing the heavy strain which always occurs as the season advances. Order early and avoid delays.

DISPATCH OF ORDERS

All orders will be filled promptly, in the order they are received, or a reason given for their non-fulfillment.

FREE DELIVERY BY MAIL

We deliver free at any postoffice in the United States all vegetable and flower seeds offered in this Catalogue, by the packet, ounce, quarter pound, pound, pint or quart.

Customers ordering these seeds by the pound, pint or quart, to be sent by freight or express, may deduct 10 cents per pound on vegetable and flower seeds, 10 cents per quart on sweet corn, and 15 cents per quart on beans and peas, from our list prices, except where noted.

When sent in this way the purchaser pays the freight or express charges on receipt of goods.

Purchaser pays express and freight charges, also on pecks and bushels and on all farm seeds, poultry supplies, stock foods, etc.

SAFE DELIVERY OF ORDERS

We guarantee the safe delivery of all orders by express or freight. If a package is lost we will replace it as soon as informed of the fact. It sometimes happens that orders never reach us or are without a signature. When customers fail to receive their goods in a reasonable time they should inform us, and at the same time send a copy of their order.

HOW TO SEND MONEY

Remittances may be made by Postoffice Money Order, Express Money Order, Bank Draft, Express or by Registered Letter. Small amounts may be sent by ordinary mail.

GUARANTEE

Complaints made that seeds are not good, should quite as often be attributed to other causes, as to the quality of the seeds. There are hundreds of contingencies continually arising, to prevent the best seeds always giving satisfaction, such as sowing too deep, too shallow, in too wet or too dry soil; insects of all descriptions destroying the plants as soon as or before they appear; wet weather, cold weather, frosts, chemical changes in the seeds induced by temperature, etc. For the above reasons it is impracticable to guarantee seeds under all circumstances.

While we exercise the greatest care to have all seeds pure and reliable, we do not give any warranty, express or implied, as to descriptions, quality, productiveness or any other matter of any seeds we send out, and will not be in any way responsible for the crop. If the purchaser does not accept the seeds on these conditions, they must be returned at once.

SEEDS IN PACKETS

We offer the following inducements to those wishing to purchase seeds in packets: Select packets to the value of \$1.15 and send us \$1.00; for \$2.35 send \$2.00; for \$3.60 send \$3.00; for \$4.85 send \$4.00; for \$6.15 send \$5.00; for \$12.50 send \$10.00

The seeds will be sent by mail, postpaid, but these low prices apply to Seeds in Packets only, and at catalogue prices, and not to seeds by weight or measure.

DESCRIPTIVE LIST

OF NEW AND
CHOICE

VEGETABLE SEEDS

**SEASON
1913**



O OUR FRIENDS AND PATRONS who receive this our 1913 Catalogue, we extend our heartiest New Year's Greeting and wish to express our sincere appreciation of their liberal patronage—whether as a new customer, or one of our old time friends who has tried Vogeler's Seeds and not found them wanting. That our customers may receive only the best, we purchase our stocks from the world's most reliable growers, exercising the greatest care in the selection and handling of our seeds, thereby insuring their purity and high germinating power.

Another fact of special interest is that the prices in this catalogue are extremely low for first-class stock, and in most cases they include postage or express charges prepaid to your door.

Again we wish to assure our customers that every order, small or large, will receive prompt and careful attention, and so far as lies within our power we shall endeavor to make every purchaser a satisfied one.

Very sincerely,

Vogeler Seed Co.

"PURITY SEEDS"

The Essentials to the Production of Choice Vegetables and Beautiful Flowers

GOOD SOIL.

A rich, sandy loam is the best, but a fair degree of success may be secured from any soil which can be made rich and friable. Good vegetables cannot be grown on barren sand, a cold, hard, lumpy clay, nor in the shade of orchard or other trees.

LIBERAL MANURING.

A soil which does not need enriching in order to produce the best results is rarely found, and very often success is in proportion to the liberality with which fertilizers have been used.

Well decomposed stable manure, where straw bedding has been used, is the best; that where sawdust is used is not so good. Often wood ashes, at the rate of one peck up to one bushel to the square rod, will be of great benefit. Commercial fertilizers are excellent, and may be used at the rate of four to twelve pounds to the square rod, and the more concentrated forms—such as Nitrate of Soda, Guano, Dried Blood and Potash Salts—at the rate of one to six pounds to the rod. A mass or lump of any of the commercial fertilizers, even if it is but a quarter of an inch in diameter, is liable to kill any seed or young plant which comes in contact with it, so it is very important that they be thoroughly pulverized and mixed with the soil.

THOROUGH PREPARATION.

Rich soil and liberal manuring will avail little without thorough preparation. The soil must be made friable by thorough and judicious working; if this is well done all that follows will be easy; if it is neglected, only partial success is possible, and that at the cost of a great deal of hard work. The garden should be well plowed or dug to a good depth, taking care, if it is a clay soil, that the work is not done when it is too wet. If a handful from the furrow moulds with slight pressure into a ball which cannot be easily crumbled into fine earth again, the soil is too wet, and if stirred them will be hard to work all summer. The surface should be made as fine and smooth as possible with the harrow or rake. It is generally necessary to plow the whole garden at once, and to do this in time for the earliest crops, but the part which is not planted for some weeks should be kept mellow by frequent cultivation.

GOOD SEEDS, PROPERLY PLANTED.

There is no more prolific source of disappointment and failure among amateur gardeners than hasty, careless or improper sowing of the seed. The seed consists of a minute plant, minus the root, with a sufficient amount of food stowed in or around it to sustain it until it can expand its leaves, form roots and provide for itself, the whole inclosed in a hard and more or less impervious shell. To secure germination, moisture, heat and a certain amount of air are necessary. The first steps are the softening of the hard outer shell and the leaves of the plant from the absorption of water, and the changing of the plant food from the form of starch to that of sugar. In the first condition the food is easily preserved unchanged, but the plant cannot use it, while in its sugary condition it is easily appropriated but perishable, and if not used it speedily decays itself and causes decay

in the plant. A dry seed may retain its vitality and remain unchanged for years, but after germination has commenced, a check of a day or two in the process may be fatal. There is no time in the life of a plant when it is so susceptible to fatal injury from the over-abundance or want of sufficient heat and moisture as at that between the commencement of germination and the formation of the first true leaves, and it is just then that it needs the aid of a gardener to secure favorable conditions. These are:

First—A proper and constant degree of moisture. The soil should always be moist, never wet. This is secured by making the surface of freshly dug soil so fine and the pressing it over the seeds so firmly with the feet or the back of the hoe that the degree of moisture remains as nearly uniform as possible.

Second—A proper degree of heat, secured by sowing the seed when the temperature of the soil is that most favorable to the germination of the seed of that particular plant. Too high a temperature is often as detrimental as one too low. The proper temperature for each sort may be learned from a careful study of the following pages and the experience of the most successful gardeners in your vicinity.

Third—Covering the seed to such a depth that while a uniform degree of heat and moisture is preserved, the necessary air can readily reach the germinating seed, and the tiny stem push the forming leaves into the light and air. This depth will vary with different seeds and conditions of the soil, and can be learned only from practical experience. In general, seeds of the size of the turnip should not be covered with more than half an inch of earth pressed down, while corn may be an inch, beans one to two inches, and peas one to four inches deep.

Fourth—Such a condition of soil that the ascending stem can easily penetrate it, and the young roots speedily find suitable food. We can usually secure this by thorough preparation of the ground, and taking care **never to sow fine seeds when the ground is wet**. Occasionally a heavy or long continued rain followed by a bright sun will so bake and crust the surface that it is impossible for the young plant to find its way through it, or a few days of strong wind will so dry the ground that the young plants will be killed. In such cases the only remedy is to plant again.

JUDICIOUS CULTIVATION.

Not only should every weed be removed as soon as it appears, but the crust which forms after a rain should be broken up and the ground stirred as soon as it is dry enough to permit it. The more frequently and deeply the soil is stirred while the plants are young, the better, but as they develop and the roots occupy the ground, cultivation should be shallower, until it becomes a mere stirring of the surface. We have seen hundreds of acres of vegetables where the yield and quality have been materially lowered by injudiciously deep and close cultivation after the roots of the plants had fully occupied the ground. A very small garden, well cultivated and cared for, will give larger returns and be in every way more satisfactory than a much larger one poorly prepared and neglected.

How to Build and Manage Hot Beds

FOR early vegetables some provision for starting certain plants earlier than can be done in the open air is desirable; for this purpose nothing is better than a good hot-bed, and its construction is so simple and the expense so slight that every garden should have one. A hot-bed proper not only protects the plants from the cold, but supplies **bottom heat**. By this term the gardener means that the soil is constantly kept several degrees warmer than the air above, that being the condition, so far as heat is concerned, which is most favorable for rapid and vigorous growth, and gardeners usually secure it by making a compact pile of some fermenting material and covering it with the earth in which the plants are to grow.

HEATING MATERIAL.—The best heating material that is easily available is **fresh** horse manure, containing a liberal quantity of straw bedding. Such manure, if thrown into a loose pile, will heat violently and unevenly, and will soon become cold. What is wanted in the hot-bed is a steady and moderate but lasting heat. To secure this, the manure should be forked over, shaken apart and, if dry, watered and allowed to stand a few days and then be forked over again, piled and allowed to heat a second time, the object being to get the whole mass into a uniform degree of fermentation, and as soon as this is accomplished it is fit for use.

SASH.—Gardeners commonly use sash made especially for hot-beds and glazed with small lights cut from odds and ends, and so furnished at very low rates. Such sash can usually be procured in any of our large cities, and costs much less than if made to order. For garden use, however, we much prefer a smaller sash that can be easily handled, and the use of larger and better glass. We would recommend that for home gardens, the sash be about two and one-half by four or five feet, and that the glass be not less than 10-14, laid with not more than one-quarter inch lap. In giving the order to one unaccustomed to the work, it would be well to state what they are to be used for, and that they need to be made like skylight sash.

THE FRAME.—This may be made of sound one-inch lumber, the back twelve to fourteen inches high, the front ten to twelve. It should be well fitted to the sash, so as to leave as little opening as possible and yet allow the sash to be easily moved up and down, even when the frame is quite wet.

THE SOIL.—This should be **light, rich, friable**. Any considerable amount of clay in it is very objectionable. If possible it should be unfrozen when put into the bed; for this reason, it is much better to prepare in the fall before, and cover the pile with enough coarse manure or straw to keep out the frost.

MAKING THE BED.—This requires careful attention, as future success depends largely upon the manner in which this work is done. Having cleared away snow and ice, build a rectangular bed one foot larger each way than the frame to be used, carefully shaking out and spreading each forkful and repeatedly treading down the manure so as to **make the bed as uniform as possible in solidity, composition and moisture**. It is of the **utmost importance** that this shaking apart and evenly pressing down of the manure should be carefully and thoroughly done; unless it is, one portion will heat quicker than the others, and the soil will settle unevenly, making it impossible to raise good plants. The proper depth of the bed will vary with the climate, season and the kind of plants to be raised. A shallow bed will quickly give a high temperature, which will soon subside; a deeper one, if well made, will heat more moderately, but continue much longer. For general purposes, a bed about two feet deep will be best.

The bed completed, the frame and sash may be put on, and fresh manure carefully packed around the outside to the very top—if the weather is at all severe, this outside banking should be replenished as it settles. The bed should then be allowed to stand with the sash partly open for a day or two to allow the steam and rank heat to pass off. The earth should

then be put on and carefully leveled. Care should be taken that the soil is dry and friable. If wet or frozen soil must be used, it should be placed in small piles until well dried out before spreading. The heat at first will be quite violent, frequently rising to 120 degrees; but it soon subsides, and **when it recedes** to 90 degrees the seed may be planted. The importance of using dry soil and allowing the first rank heat to pass off is very great. Every season thousands of hot-beds fail of good results from these causes, and seedsmen are blamed for failure resulting from overheating, or wet or soggy soil.

MANAGEMENT OF THE BED.—The essentials for success are a steady, uniform degree of heat and moisture; keeping the soil at all times a few degrees warmer than the air and the careful "hardening off" (by exposure to the air and diminishing the supply of water) of the plants before transplanting into the open air. Simple as these may seem to be, there are many difficulties in the way of securing them, prominent among which are overheating the air under a bright sun. Without experience one would scarcely believe how quickly the temperature inside of a well built hot bed will rise to 90 or 100 degrees upon a still, sunny day, even when the temperature outside is far below freezing, or how quickly the temperature will fall to that outside, if upon a windy cloudy day the sash is left open ever so little. A rush of cold air driven over the plants is far more injurious than the same temperature when the air is still. Again, in cloudy weather a bed will go several days without watering, but will dry up in an hour when open on a sunny day. The details of management, however, must be learned by experience, but may be easily acquired by one who gives the matter careful attention, keeping constantly in mind the essentials given above.

A COLD FRAME is a simple construction of boards for wintering over young plants—Cabbage, Lettuce, Cauliflower, Broccoli, etc.—and is also extremely useful to protect and harden off plants from the greenhouse or hot-bed before fully exposing them in the open air.

Select a dry, southern exposure, form a frame from four to six feet wide and as long as required. The back should be fourteen to eighteen inches high, and the front eight to twelve, with a cross-tie every three feet. The frame may be covered with sash or cloth. Seeds of the vegetable to be wintered, sown in open border early in September, will be ready to plant in cold frames about the last of October. The soil should be well prepared and smoothly raked before planting. Admit air freely on pleasant days, but keep close in severe weather.

TRANSPLANTING.—In transplanting, the main points to be regarded are: Care in taking up the plants, so as to avoid injury to the roots, planting firmly so as to enable the plant to take a secure hold of the soil, reducing the top to prevent evaporation, and shading to prevent the hot sun from withering and blighting the leaves. In transplanting from a hot-bed, harden the plants by letting them get quite dry a day or two before but give an abundance of water a **few hours** before they are taken out. It is most apt to be successful if done just at evening or immediately before or during the first part of a rain—about the worst time being just **after** a rain, when, the ground being wet, it is impossible to sufficiently press it about the plant without its baking hard. If water is used at all, it should be used freely, and the wet surface immediately covered with dry soil.

WATERING.—The best time to water plants is between sunset and sunrise. Water may be given to the roots at any time, but should never be sprinkled over the leaves while they are exposed to bright sunshine. If watering a plant has been commenced, continue to supply it as needed, or more injury than good will result from what has been given. One copious watering is better than many scanty sprinklings. The ground should always be stirred with a hoe or rake as soon after watering as it can be done without making the soil muddy.

ARTICHOKE

Culture.—Sow in hot-beds in February or March, and transplant so as to give plenty of room until danger of frost is over. Then set in very rich, well-drained soil in rows four feet apart and two feet apart in the row. The plants can be raised in seed beds out of doors, but in that case will not be likely to produce heads the first year. The edible portion is the undeveloped flower heads, which are produced from about September 1st until frost. Late in the fall cut off the old tops and thoroughly protect the crowns with leaves or straw, to prevent severe freezing. The second year thin the starting shoots to three of the best, which will commence to form heads about July 1st. The plants may also be blanched like Cardoons. This is accomplished by cutting back in July the stems close to the ground; the rapidly growing shoots which then start up may be tied and blanched like Celery. As Artichoke plants do not yield satisfactorily after three or four years, it is best to start a new plantation at least as often as once in three years.

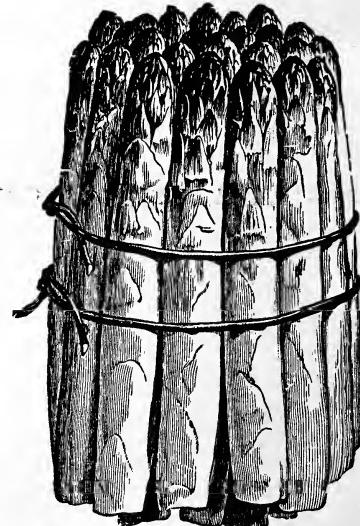
Large Green Globe or Paris

A table vegetable of very high merit. Perennial. The best sort for general use. Buds large, nearly round; scales pale green, shading to violet at the base; very thick and fleshy. This is the French Artichoke, the large flower buds of which are so highly esteemed by epicures, and is very different from the plant cultivated for its fleshy roots or tubes. Pkt. 5c; oz. 30c; $\frac{1}{4}$ lb. \$1.00; lb. \$3.50.

ASPARAGUS

Asparagus is one of the earliest spring vegetables and would be in universal use were it not for the mistaken idea that it is difficult to grow. In reality it can be produced very easily and cheaply. It does best in a moist, sandy soil, but can be grown in any garden by following the directions given here. A bed 15x50 feet, requiring about 100 plants, should give an abundant supply for an ordinary family.

Culture.—Beds are usually formed by setting plants one or two years old, which can be procured of us. If you wish to grow plants yourself, pour hot, but not boiling, water on the seed and let stand until cool; pour it off and repeat two or three times with fresh hot water. Then sow in drills one foot apart and two inches deep, in light, rich soil. When the plants are well up, thin to about one inch apart, and give frequent and thorough cultivation during the summer. If this has been well done, the plants will be fit to set the next spring. The permanent beds should be prepared by deep plowing, or spading, and thoroughly enriching the ground with stable manure or other fertilizer. If the subsoil is not naturally loose and friable, it should be made so by thoroughly stirring with a subsoil plow or the spade. Set the plants about four inches deep and one or two feet apart in rows four to six feet apart. After the plants are well started give frequent and thorough cultivation. Early the next spring spade in a heavy dressing of manure, and one quart of salt to each square rod and cultivate well as long as the size of the plants will permit, or until they begin to die down. The next season the bed may be cut over two or three times, but if this is done all the shoots, no matter how small, should be cut. After the final cutting, give a good dressing of manure, ashes and salt. Cultivate frequently until the plants meet in the rows. In autumn, after the plants are fully ripe and yellow, they should be cut and burned. If well cultivated and manured, the bed should give a full crop the following season and continue productive for eight or ten years.



CONOVER'S COLOSSAL.

Conover's Colossal

The standard variety. A mammoth green sort of the largest size and of good quality. Produces more stalks to the root than any other kind. Pkt. 5c; oz. 10c; $\frac{1}{4}$ lb. 20c; lb. 60c, postpaid.

Palmetto

A favorite with truckers. Not quite as prolific as Conover's, but a little earlier and makes larger stalks. Pkt. 5c; oz. 10c; $\frac{1}{4}$ lb. 20c; lb. 65c, postpaid.

From "Purity Seed" Fine Vegetables Grow.

BEANS

Culture.—No crop responds more readily to good soil and cultivation than this. The soil best adapted to it is a light, rich, well drained loam, which was manured for the previous crop. If too rank manure is used it is apt to make the plant run too much to vine. Beans are extremely sensitive to both cold and wet, and it is useless to plant them before the ground has become dry and warm. The largest returns will result from planting them in drills from two to three feet apart, and leaving the plants two to six inches apart in the row. Up to the time of blossoming they should have frequent shallow cultivation, but any cutting of the roots after the plants come into bloom is likely to cause the blossoms to blast and so cut off the crop. Remember that the cultivation of beans should always be very shallow, and that it is useless to expect a crop from a field so poorly prepared as to need deep stirring after planting.

Varieties should be selected so as to give a succession both of string beans and green shelled beans. The wax podded beans are particularly likely to run off into green podded plants, and it requires constant attention and skillful selection to keep them pure. Hence it is especially important to use seed from reliable sources only.

Dwarf, Bush or Snap Beans

Yellow or Wax-Podded Varieties

Challenge Dwarf Black Wax

The Best Early Wax Bean
on the Market

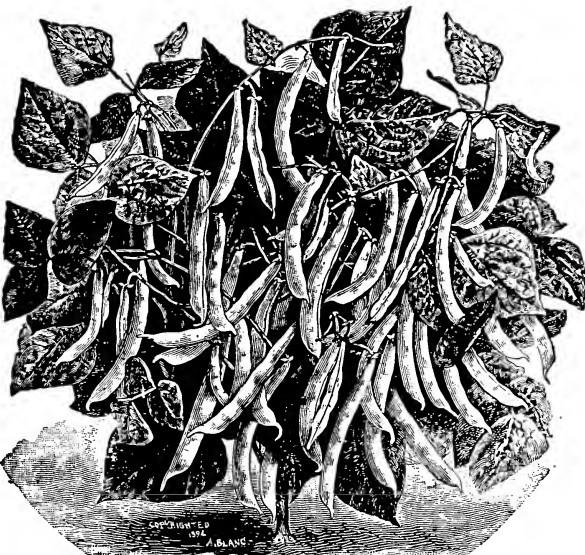
In growth and general appearance the plants are the same as the old Black Wax or Butter Bean, but are earlier and more productive. The pods are clear waxy-white, quite round, very fleshy, crisp, tender and stringless. The dry bean is jet black.

Pkt. 10c; pt. 30c; qt. 50c; postpaid.
By Express, pk. \$2.50; bu. \$9.00.

Improved Golden Wax

Moderately early, of vigorous, bushy growth, rust-proof. A reliable heavy cropper, whether sown in spring, summer or early fall. Pods long, thick and solid, absolutely stringless, of golden yellow color. A standard sort for both home and market garden use.

Pkt. 10c; pt. 30c; qt. 50c; postpaid.
By Express, Pk. \$2.25; bu. \$8.50.



IMPROVED GOLDEN WAX.



DAVIS WAX.

Pencil Pod Black Wax

The best quality round pod early Wax Bean. It has a bushy growth, height 15 inches; is extremely productive. Pods are straight, round, six to seven inches long; thick, absolutely stringless, of fine flavor; color medium yellow. The seed is black, an all round high quality sort for the kitchen garden or the market gardener. Pkt. 10c; pt. 30c; qt. 50c, postpaid. By Express, pk. \$2.50; bu. \$9.50.

Davis Wax

THIS IS THE MOST HARDY AND PRODUCTIVE BUSH WAX-PODDED BEAN IN CULTIVATION.

All of the pods are very long, white, straight and handsome. The vine is rustless and very vigorous, bearing near the center many clusters, some of which extend above the foliage. When young, the pods are very brittle, crisp and tender. The dry beans are kidney-shaped, clear, white and excellent for baking. ONE OF THE BEST for SHIPPING as SNAP BEANS, and of the greatest value for either the market or the home garden. The length, perfect shape and fine color of the pods, and the clear, white seed, make this ONE OF THE BEST FOR CANERS.

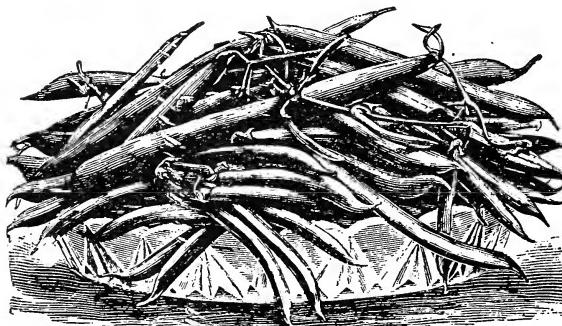
It is just what they want—a long, straight, clear white pod, which does not discolor in canning. Pkt. 10c; pt. 30c; qt. 50c, postpaid.
By Express, pk. \$2.50; bu. \$9.00.

BEANS

BUSH OR SNAP, GREEN POD VARIETIES

Earliest Improved Round Pod Red Valentine

This variety is usually ready to pick in 34 days after planting. The pods are round, very thick and fleshy, with very little strings, of finest quality and unequalled in uniformity of ripening, which latter fact, combined with its earliness, makes it one of the most profitable sorts for the gardener. Pkt. 10c; pt. 25c; qt. 45c, postpaid. By Express, pk. \$2.25; bu. \$8.50.



EARLIEST IMPROVED ROUND POD RED VALENTINE

Extra Early Refugee or Brown Valentine

A very early, green-podded kind, furnishing a fleshy pod of fine quality. Our stock has been selected with great care, and is uniform, all the vines ripening their pods well together and long before those of the common Refugee are usable. Pkt. 10c; pt. 25c; qt. 45c, postpaid. By Express, pk. \$2.25; bu. \$8.50.

Royal Dwarf Kidney

Plant large, branching, with large, broad leaves and white flowers, pods medium sized, dark green, coarse; beans large, white, kidney-shaped, slightly flattened and of excellent quality, green or dry. Pkt. 10c; pt. 25c; qt. 45c, postpaid. By Express, pk. \$2.25; bu. \$8.00.

Burpee's Improved Bush Lima

This new variety may be regarded as the largest and best of the large seeded Bush Lima Beans. The pods are larger than the older varieties and contain beans which are proportionately thicker and longer than those of the older varieties. The quality is excellent. Pkt. 10c; pt. 30c; qt. 50c, postpaid. By Express, pk. \$2.50; bu. \$9.00.

Henderson's Bush Lima

While the beans are small (being of the Sieva or Sewee type, known in the South as "butter beans"), yet they are ready for the table earlier than the Large Lima, and the little pods, growing in clusters, are plentiful. The compact, dwarf bushes are of hardy growth and very prolific. Pkt. 10c; pt. 30c; qt. 50c, postpaid. By Express, pk. \$2.25; bu. \$8.50.

Stringless Green Pod

One of the most popular bush beans in America. In point of earliness it ranks among the first; in quality it is excelled by none, and in bearing ability it stands without a rival. It is unquestionably the greatest green pod bean to date. The pods are full, fleshy and nearly straight, and are borne in abundance through a long season, beginning early. They are 5½ to 6½ inches in length, light green in color, very tender, and of highest and best flavor. They remain long in edible condition, and the plant or bush bears continuously for weeks. This bean is unexcelled for home use, and will be found very profitable for market; it has already taken great hold with market gardeners, on account of its heavy cropping ability. Pkt. 10c; pt. 25c; qt. 45c, postpaid. By Express, pk. \$2.25; bu. \$8.50.

Broad Windsor

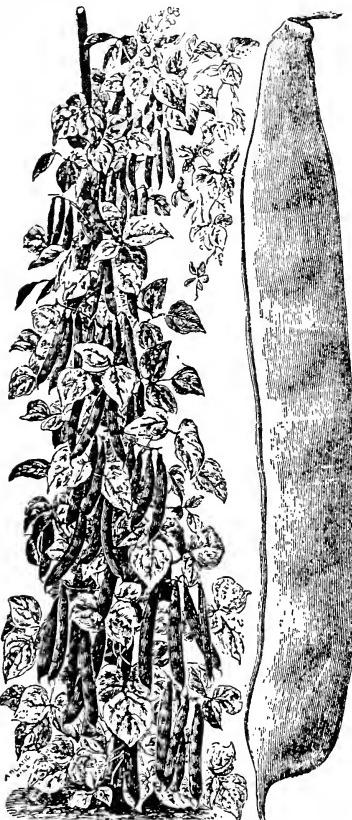
(ENGLISH DWARF OR BROAD.) This is entirely distinct from the common, or French, bean. The large, coarse pods are borne on stout plants, which are coarser, more erect and less branched than those of the French bean. Pkt. 10c; pt. 25c; qt. 40c, postpaid; By Express, pk. \$1.50; bu. \$5.00.



GREEN POD.

Pole or Running Beans

Culture.—Pole Beans are even more sensitive to cold and wet, as well as to droughts and hot winds, than the dwarf varieties, but are of superior quality and productiveness. After settled warm weather, set poles four to eight feet long in rows four feet apart and extending north and south, the poles being three feet apart in the row. Let the poles slant slightly toward the north. Set in this way, the vines climb better and the pods are straighter and more easily seen. Around each hill plant five to eight beans two inches deep. When well started, thin to four plants, and see that they all climb around the pole in the same way, for they will not grow if tied up in the opposite direction. Another plan is to plant in rows thickly enough so that there will be one plant to eight or ten inches. Set posts five feet high firmly at each end of the rows and drive stakes made of 2x2 lumber at intervals of sixteen feet along the rows. Stretch a wire, size No. 10 or 12, between posts along each row, and fasten it to the tops of the stakes in the row with wire staples. Run a light wire or twine along the row about six inches from the ground and fasten to the posts or stakes with wire staples. Tie twine to the wire above the wire or twine below, wherever there is a plant. The vines will run up these until they reach the top wire, when they will care for themselves. Another way is to omit the bottom wire and stick small stakes two to six inches in the soil and fasten to top wire.



LAZY WIFE'S.

Old Homestead or Kentucky Wonder

This most popular variety is an improved large podded strain of the Southern Prolific. The pods, usually seven inches or more in length, are so fleshy that they are greater in width than in breadth, being deeply creased or "saddle-backed." They are solidly meaty, entirely stringless, and of finest quality. If kept gathered as they mature, the vines will continue to bear to the end of the season.

Pkt. 10c; pt. 30c; qt. 45c, postpaid. By Express, pk. \$2.25; bu. \$8.50.

Mammoth Podded Horticultural

Similar in general character to the London Horticultural, but larger in every way. The mammoth pods are striped and splashed with exceedingly brilliant crimson. The beans, when fit for use, are of immense size and of the finest quality, and when dry are colored and marked in the same way as the pods.

Pkt. 10c; pt. 30c; qt. 50c, postpaid. By Express, pk. \$2.25; bu. \$8.00.

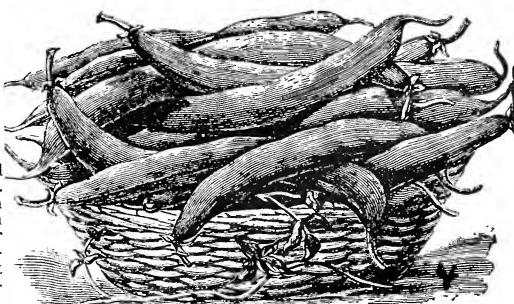
Lazy Wife's

We presume it derived its name from its immense productiveness, and from the ease with which they are cooked. The pods, of medium dark green color, are produced in great abundance, and measure from four and a half to six inches in length; they are broad, thick, very fleshy and entirely stringless. The pods retain their rich, tender and stringless qualities until nearly ripe, and at all stages are unsurpassed for snap-shorts, being peculiarly luscious. Many persons have testified that they never ate a bean quite so good in distinct rich flavor. Each pod contains from six to eight round, white beans, which make excellent winter shell beans.

Pkt. 10c; pt. 30c; qt. 50c, postpaid. By Express, pk. \$2.25; bu. \$9.00.

PLEASE NOTICE

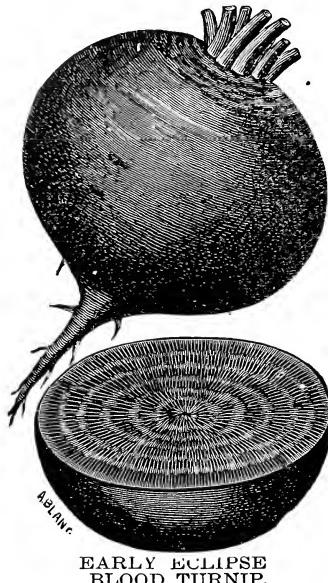
We do not pay the express or freight on Beans, Peas or Sweet Corn at prices quoted by peck or bushel.



KENTUCKY WONDER.

BEETS

Culture.—The best results are obtained on a deep, rich, sandy loam. If wanted very early sow in hot-beds and transplant, cutting off the outer leaves. For general crop sow as soon as the ground will permit in drills eighteen inches apart and thin out to three inches in the row. For winter use, the turnip varieties may be sown in June, and the beets may be kept by storing in a cellar and keeping covered with sand, or sandy soil, to prevent wilting, or they may be kept outdoors in pits such as are used for apples and potatoes. One or two ounces, or single packets, of two or three sorts, will give a good supply for a large family. It is best to sow in freshly prepared soil, which should be pressed firmly over the seed.



Extra Early Egyptian Blood Turnip

The best variety for forcing, and excellent for first early crop out of doors, being very early, with small top. Leaf stems and veins dark red, leaf dark green, dotted with red, roots very dark red, rounded on top, but flat beneath, with very small tap roots, flesh dark red, zoned with lighter shade, hard, crisp and tender when young, but becoming woody with age.

Pkt. 5c; oz. 15c; 1 lb. 45c; lb. \$1.40.

Early Eclipse Blood Turnip

Tops small, dark purplish-green, shading to lighter color outside of leaves. Roots nearly globular, with a small tap root and very small collar. Flesh dark red, zoned with a lighter shade, very sweet, crisp and tender, especially when young.

Pkt. 5c; oz. 15c; 1 lb. 45c; lb. \$1.40.

Improved Long Dark Blood

Tops large, necks small, leaf stems and veins red, leaf green, roots large, tapering, growing even with the surface, flesh dark red, zoned with lighter shade, very tender and sweet, and remaining so when kept till spring.

Pkt. 5c; oz. 10c; 1 lb. 35c; lb. \$1.25.

Bastian's Half Long Blood

This is an entirely distinct variety and by far the best for winter use. The deep red roots are very symmetrical, two or three times as long as thick, and always smooth and handsome. The flesh is rich dark red, very sweet, crisp and tender, never becoming woody, even in portions above the ground, and retains its good quality longer than other sorts. We consider this the most valuable variety for winter and spring use.

Pkt. 5c; oz. 15c; 1 lb. 45c; lb. \$1.40.

Large Ribbed Swiss Chard, Silver or Sea Kale Beet

We recommend all our customers to try this distinct vegetable, which is superior to the common beet for greens; if sown at the same time it will be fit for use before it. Later the plants form broad, flat, beautiful wax-like stems, which are delicious as beets or pickled.

Pkt. 5c; oz. 10c; 1 lb. 35c; lb. \$1.25.

Detroit Dark Red Blood Turnip

Long experience has shown this variety to be the best deep red turnip beet, not only for market gardeners, but for home use. It is also by far the best for canning, making a strikingly handsome product, much superior to that obtained from any other variety. Its small, upright-growing tops, early maturing, and the splendid shape and color of the roots make it popular with every one who plants it. Tops small, upright-growing, so that the rows may be close together; leaf stems and veins dark red, blade green; roots globular or ovoid, peculiarly smooth; color of skin dark blood-red; flesh bright red, zoned with a lighter shade; very crisp, tender and sweet, and remaining so for a long time.

Pkt. 5c; oz. 15c; 1 lb. 50c; lb. \$1.50.



DETROIT DARK RED BLOOD TURNIP.

SUGAR BEETS

Sugar Beets are desirable not only for the manufacture of sugar, but are invaluable for stock-feeding and table use. They are deservedly popular, both on the farm and in the small garden. No one who raises beets of any kind should fail to plant at least a trial bed. Our list comprises the best strains on the market.

Soil.—The best soil for Sugar Beets is a rich, friable sandy or clayey loam. They cannot be profitably grown on a tenacious wet clay or a very sandy or excessively hard and stony soil. Rich, mucky soils will often give an immense yield of roots which, though excellent for feeding, are of little value for sugar-making. Most farm lands capable of producing a good crop of corn or wheat can be made to grow a good crop of beets.

Manure.—Sugar Beets do much better when the soil has been made rich for a preceding crop than when the fertilizers are applied the same season. The use of rank, undecomposed manures, or such as contain a large amount of nitrogen, will result in large coarse roots, of little value for sugar-making. If the condition of the ground necessitates the use of a fertilizer the current season, the greatest care should be taken to have it evenly and thoroughly mixed with the surface soil.

Seed.—There is no crop where the quality of seed used is of greater importance than this; inferior seed cannot by any amount of skill in cultivation be made to give satisfactory yield. A great deal of most patient and skilful labor has been expended in establishing and developing strains of beets which are adapted to sugar-making. It is only by the use of the best seeds that profitable sugar-making is possible.

Planting and Cultivating.—The great secret of successful and economical culture of beets is thorough preparation of the soil before planting. The seed should be planted as soon as the soil can be gotten into good condition, which is not likely to be before the middle of April, but the seeds should be in before the last of May. Plant in drills twenty or thirty inches apart, dropping from twelve to twenty seeds to the foot. This will require from ten to fifteen pounds of seed to the acre. It is very important that the seed be well covered with not to exceed one inch of soil pressed firmly over it. As soon as the young plants have started sufficiently to make the rows visible they should be cultivated, and the field should receive constant attention so as to keep the surface soil loose and destroy the starting weeds. When the beets are about two or three inches high they should be thinned so as to stand six to eight inches apart in the row, and cultivation should be discontinued as soon as the roots have commenced to form. Often a crop is injured by late cultivation, which starts the plants into fresh growth when they should be maturing and developing sugar. Sugar beets ripen and become fit for harvesting as distinctly as do potatoes or corn, and they indicate that they are approaching this condition by the outer leaves turning yellowish and the top seeming to decrease in size owing to the curling of the central leaves. They should be gathered and stored when ripe or mature, for if left they may start into fresh growth, which lessens the proportion of sugar. The successful cultivation of beets rich in sugar requires rotation of crops, however rich and good the soil may appear to be.

Vilmorin's Improved

In general, the most desirable beet for the sugar factory is the one containing the largest percentage of sugar. In this variety we have one of the richest sorts in cultivation, and, moreover, it will do better on new lands than any other variety, suffer less from an excess of nitrogen, and keep the best. In size it is medium or a little below, yielding from ten to sixteen tons per acre, and containing, under favorable conditions, as high as eighteen per cent. sugar. The beet grows below the surface. The green leaves are smooth edged and spreading.

Oz. 5c; 1 lb. 15c; 1 lb. 50c.

SUGAR BEETS

Continued

Klein Wanzleben

A little larger than Vilmorin's Improved, and containing about the same amount of sugar. Its yield of beets is from twelve to eighteen tons per acre. The beet grows below the surface. The green leaves are rather large and spreading, with wavy edges. A little harder and easier grown than Vilmorin's Improved. Probably the best sort for the experimenter to use.

Oz. 5c; 1 lb. 15c; 1b. 50c.



KLEIN
WANZLEBEN.



GIANT FEEDING SUGAR BEET.

Giant Feeding Sugar Beet, or Half Sugar Mangel

The investigations of scientific men and the experience of practical stock feeders have established that a ration of some appetizing green food is of such great importance as to be practically essential to the profitable winter feeding of stock. In the Northern States a supply of such food can only be obtained from some root crops. Of these Mangel Wurzel is popular because of the immense yield, but it is not fully satisfactory because of the low nutritive value. By the same system of careful selection and breeding, which has accomplished so much with the Sugar Beet, there has been established in the **Giant Feeding Sugar** a strain of

beets which, while giving nearly as large a yield of easily grown and harvested roots as a crop of Mangels, supplies a food of very much **higher nutritive value**, the roots for feeding purposes being really more valuable, pound for pound, than those of the very best strains of Sugar Beet, and the yield under equally favorable conditions being more than double. The roots grow partly out of the ground, and because of this and their shape, the crop can be harvested and stored at less expense than any other root crop. We are certain that everyone who plants this variety and grows it with care will be much pleased with the crop. Every farmer should try it.

Oz. 5c; 1 lb. 15c; 1b. 50c.

Vegetables Grown from "PURITY SEEDS" are Prize Winners.



IMPROVED.

BRUSSELS SPROUTS**Long Island Improved**

The plants, which are very hardy, grow two or three feet high, and produce from the sides of the stalk numerous little sprouts which resemble very small cabbages, one or two inches in diameter. The leaves should be broken down in the fall, to give the little heads more room to grow. They should be treated in all respects like winter cabbage or kale. We offer a carefully grown strain, very hardy, and giving compact round sprouts of large size and good quality.

Pkt. 5c; oz. 15c; 1 lb. 45c; Ib. \$1.50.

MANGEL WURZEL BEET

IMPROVED MAMMOTH LONG RED.—An improvement on the old variety. The roots are very large, uniformly straight and well formed, proportionately thicker, and are deeper colored than the common sort, and with smaller tops. We know our stock of this variety will produce the largest and finest roots which can be grown, and that it is vastly superior to many strains of the same sort offered under other names, such as Norbitan Giant, Colossal, Monarch, etc.

Oz. 5c; 1 lb. 15c; Ib. 45c.

ORANGE GLOBE.—We think this one of the best varieties of Mangel Wurzel grown for stock feeding. It has exceedingly small tops and few leaves; leaf stalks and blades green; roots medium sized, uniformly globe-shaped, having a very small tap and few side roots; color of skin, deep orange yellow; flesh, white and of excellent quality. The roots grow almost entirely above ground, making them admirably adapted to shallow ground and very easy to harvest.

Oz. 5c; 1 lb. 15c; Ib. 45c.

GOLDEN TANKARD.—Tops comparatively small, with yellow stems and mid-ribs; neck very small; roots large, ovoid, but filled out at top and bottom, so as to approach a cylindrical form. Flesh yellow, zoned with white. A great improvement and worthy of use on every farm.

Oz. 5c; 1 lb. 15c; Ib. 45c.

DANISH SLUDSTRUP.—This is the most popular variety of Mangel. It is more largely planted than any other sort. Selected especially for its chunky type, it is valuable not only for its high percentage of dry matter, but also for its phenomenal yields. Roots cylindrical in shape and are yellow. As the greatest portion of the root grows above the surface of the soil, they are easily harvested, and their chunkiness prevents their breaking in handling.

Oz. 5c; 1 lb. 15c; Ib. 50c.



LONG ISLAND IMPROVED.

"PURITY SEEDS" PRODUCE BEST CROPS

CABBAGES

For many years Cabbage Seed has been a leading specialty with us. Our Cabbage Seeds are all grown from approved stock seeds. There is none more reliable, none that can be more implicitly depended upon to give planters uniformly satisfactory results.

Culture.—The requisites for complete success are: First, good seed; this plant is largely dependent upon the best seed for its success; no satisfactory results can possibly be obtained from poor stock. Second, rich, well-prepared ground. Third, frequent and thorough cultivation. A heavy, moist and rich loam is most suitable. It should be highly manured and worked deep. Cabbage is universally grown all over the country, and specific directions regarding the time and methods of planting applicable to all localities cannot be given. In general, north of the 40th parallel, the early sorts should be sown very early in hot-beds, hardened off by gradually exposing them to night air, and transplanted as early as the ground is in good condition, setting eighteen to thirty-six inches apart, according to the size of variety. South of the 40th parallel, sow about the middle of September, or later, according to latitude, transplanting into cold frames if necessary to keep them through the winter, and setting in open ground as early as possible in the spring.

The late autumn and winter varieties may be sown from the middle to the last of spring and transplanted when four to six inches high. Shade and water the late sowings in dry weather to get them up. It is important that the plants should not be crowded in the seed bed, or they will run up weak and slender, and be likely to make long stems.

One of the most successful eastern market gardeners recommends sowing cabbage for family use as follows: At the desired time, sow the seed in hills, six to twelve seeds in a place, and after the plants are of sufficient size, thin to a single plant to the hill, and cultivate as usual. This is a very simple method, and in some cases is very successful.

Cabbage should be hoed every week, and the ground stirred as they advance in growth, drawing up a little earth to the plants each time until they begin to head, when they should be thoroughly cultivated and left to mature. Loosening the roots will sometimes retard the bursting of full grown heads.

Of late years many crops of early cabbage have been destroyed by maggots at the roots. The best remedy seems to be to remove the earth from around the stem and apply an emulsion of kerosene (coal oil) made as follows: Add one quart of kerosene oil to two quarts of **boiling** soft soap, which has been thinned to the consistency of cream. Stir the oil thoroughly by churning or other method until it has united with the soap and formed a creamy-like substance. Then dilute with five times as much water.

Tobacco dust, ashes, slacked lime and coal dust are all recommended as preventives, and with us have proved valuable in the order named. These are scattered about the plants, leaving one here and there untreated for the flies to congregate around and deposit their eggs upon, when the plants should be pulled up and destroyed.

The cabbage worms which destroy the leaves, and heads later, may be killed by dusting with Pyrethrum powder.

If the disease called "club root" should get a foothold, do not plant the land with any of the cabbage family for a year or two. This is usually an effective remedy.

To preserve cabbage during the winter, pull them on a dry day, and turn them over on the heads a few hours to drain. Set them out in a cool cellar, or bury them in long trenches in a dry situation, covering with boards or straw so as to keep out frost and rain.

A great many of the varieties of cabbage are simply strains rather than **distinct sorts**, and are really the same as some older and better known kinds. We think there is not a single variety offered in this country which we have not seen both in trial and in fields, and we are confident that every good quality can be found in a greater degree in the varieties we offer than any other kinds.

First Early Cabbages

EARLY JERSEY WAKEFIELD

The earliest and hardest heading of extra early Spring Cabbages. Most gardeners depend upon it for the bulk of their extra early crop. Our stock is grown and selected with the greatest care, and there is none better, and there are few as good. Heads conical, very compact, solid and of excellent quality. The thick, stout leaves and compact habit make it the best for wintering over and very early setting.

Pkt. 5c; oz. 20c; 1 lb. 60c; 1 lb.
\$2.00.



WHEN YOU WANT FINE VEGETABLES PLANT "PURITY SEEDS"

CABBAGES

First Early—Continued

Early Spring

The earliest flat headed variety. A wonderfully compact plant with few outer leaves so that a great number of fine solid heads can be produced on an acre. Although it does not come to full maturity as early as Jersey Wakefield, it becomes solid enough for use about as early and is by far the best sort for markets that demand a very early, large, flat cabbage. The plant is vigorous, with short stem. Leaves nearly round, with short leaf stem, broad, smooth and of distinctive light green color. The head is very large for the size of the plant, nearly equaling many of the later kinds.

Pkt. 5c; oz. 20c; $\frac{1}{4}$ lb. 60c; lb. \$2.00.



EARLY SPRING.

All Head Early or Faultless

For the amateur who plants but one variety of Cabbage this is the one he should select, as for all purposes it answers the requirements better than any other sort. It matures heads of large size, uniform, handsome in appearance, and of a quality which is not equaled. The outer leaves are few and close plantings may be made. Among kraut growers it is the most popular variety for the largest tonnage possible may be raised to the acre.

Pkt. 5c; oz. 20c; $\frac{1}{4}$ lb. 60c; lb. \$2.00.

Early Winnigstadt

One of the best for general use, being very hardy and sure to head, forming a hard head when most sorts fail.

Those who have failed with other kinds can hope to succeed with this.

It seems to suffer less from the cabbage worm than any other sort.

Plant is very compact, with short, thick leaves.

Heads regular, conical, very hard, and well both summer and winter.

It is the hardest, not only as regards frost, but will suffer less from excessive wet, drought, insects or disease than any other second early sort, and will give a fair crop of heads when others fail.

Pkt. 5c; oz. 15c; $\frac{1}{4}$ lb. 50c; lb. \$1.60.



EARLY WINNIGSTADT.

Early Dwarf Flat Dutch

The type is so pronounced and the name so widely known that it would be hard to displace it, with even a better sort. It continues to succeed everywhere. It is an excellent second early cabbage, producing large, solid heads of uniform shape, flattened on top, and always making a handsome appearance.

Pkt. 5c; oz. 15c; $\frac{1}{4}$ lb. 45c; lb. \$1.50.

SECOND EARLY OR SUMMER CABBAGES

Early Summer

This variety matures ten days or two weeks after Wakefield, with heads almost double the size of that very early sort. It is one of the best of the large early cabbages, of round, flattened form and very compact and solid. It is a valuable variety for the market gardener. One point in favor of this cabbage is that on account of its short outer leaves it can be planted almost as closely as the Wakefield, or from 11,000 to 12,000 plants to the acre. The shape of this cabbage is remarkably uniform. We offer strictly first-class Long Island grown seed.

Pkt. 5c; oz. 20c; 1 lb. 50c; lb. \$1.75.



EARLY SUMMER.

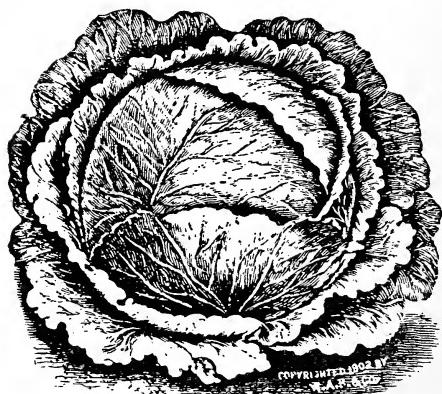


SUCCESSION.

Succession

The Succession Cabbage follows ten days behind the Early Summer, and differs from that variety in forming heads at least one-third heavier, while at the same time it can be planted nearly as close, as its outer leaves are unusually short and compact for a cabbage forming such a large and heavy head. In about two acres of it which was growing for seed purposes, and examined by three experts, it was pronounced to be the most perfect type of cabbage they had ever seen—every cabbage was headed up, of a uniformly perfect shape, large and heavy. Although this variety will be largely grown to come in for midsummer use, it will also be most valuable as a fall or winter variety, as its firm, solid heads make it an excellent keeper.

Pkt. 5c; oz. 20c; 1 lb. 60c; lb. \$2.00.

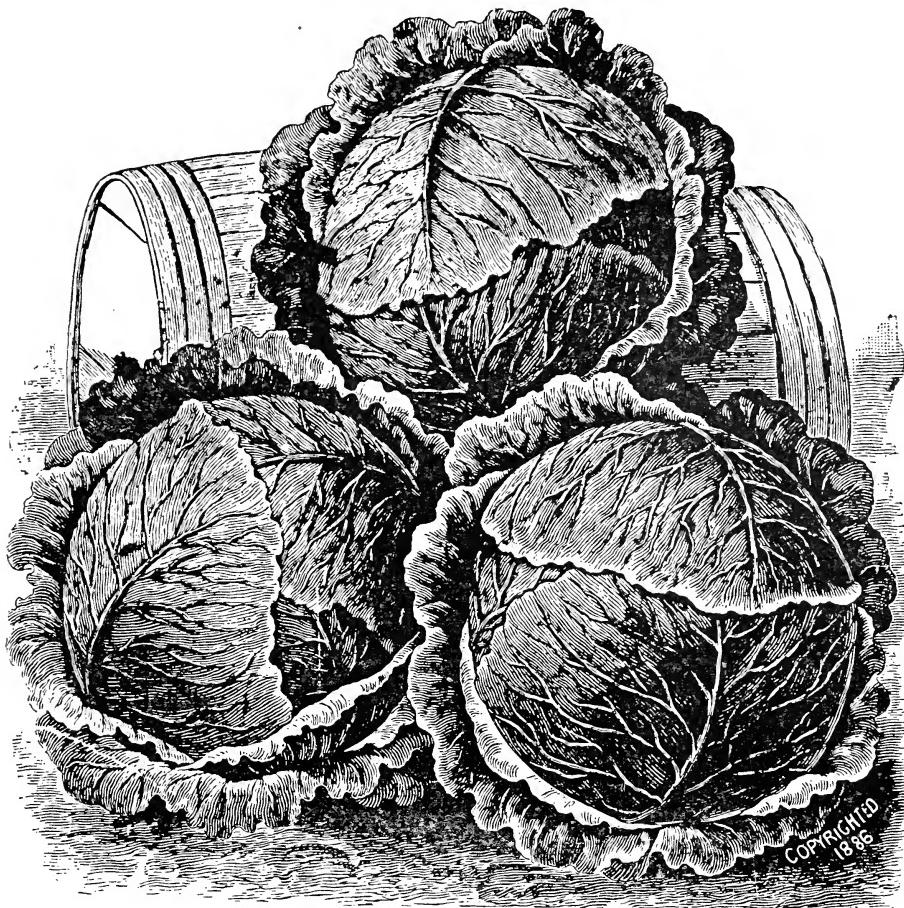


Danish Summer Ballhead

The Danish Summer Ballhead Cabbage is taking the place among the early varieties that the Danish Ballhead holds among the later sorts. It is a second early, extremely hard, long-keeping and of superb quality, and on light soil it does particularly well, being a sure header. It resembles the Winter Ballhead quite closely, excepting that it is smaller and slightly flat on top. It has traces of curliness on the outside leaves and delicate flavor that suggests Savoy blood. Color is light green, very small with fine ribs in the leaves.

Pkt. 5c; oz. 25c; 1 lb. 85c; lb. \$3.00.

Late or Autumn Cabbages



Surehead, the King of Cabbages

This famous cabbage, named and introduced in 1877, has gained steadily in popular favor. Hardly any other variety can approach the Surehead in fine quality and uniform reliability in forming solid heads, of good size and superb quality. Surehead Cabbage produces large, round, flattened heads of the Flat Dutch type, and is remarkable for its certainty to head. It is **all head**, and **sure to head**, even under unfavorable conditions. The heads are remarkably uniform, very hard, firm and fine in texture, and ordinarily weigh from ten to fifteen pounds each. It is very sweet flavored, has but few loose leaves, keeps well, is good for shipping, and is just the variety and quality to suit market gardeners, farmers and all lovers of good cabbage.

Pkt. 5c; oz. 20c; $\frac{1}{4}$ lb. 60c; lb. \$2.00.

Mammoth Rock Red

This is the best, largest and surest heading Red Cabbage ever introduced, and much better than the stock offered as "Red Drumhead." No one should plant the latter as long as our strain of Mammoth Rock Red can be obtained. The plant is large, with numerous spreading leaves. The head is large, round, very solid and of deep red color. Ninety-eight per cent of the plants will form extra fine heads.

Pkt. 5c; oz. 25c; $\frac{1}{4}$ lb. 75c; lb. \$2.50.

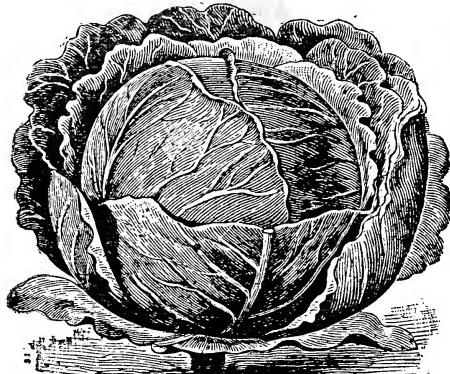
"PURITY SEEDS" HAVE STOOD THE TEST

Late or Autumn Cabbages

Superior Premium Late Flat Dutch

The largest and best of the late market sorts. A strain of Late Flat Dutch Cabbage in which the plants are very vigorous and hardy. The leaves are very large and broad; the stem of moderate height; the head large and very solid. A hardy and very sure heading sort. A thousand plants can be depended upon to produce from 950 to 1,000 large, oval, solid heads of splendid quality, which will keep in the best condition for a long time. Particularly desirable for those who wish to raise large quantities of cabbage for fall shipment.

Pkt. 5c; oz. 15c; 1 lb. 45c; 1b. \$1.50.



DANISH BALL HEAD.

in close quarters. It has excellent keeping qualities, and comes out of the pit in March or April as fresh as when it was put in. It is the best cabbage to raise where it is sold per ton or by weight, as its solidity is not equalled by any other cabbage in the list.

Pkt. 5c; oz. 25c; 1 lb. 85c; 1b. \$3.00.

Louisville Short-Stem Drumhead Cabbage

This is extremely uniform in heading and dwarf in growth, so that the largest number of heads can be raised on a given area. The heads appear to rest on the surface of the soil. It grows with little outer foliage, the leaves all folding in closely about the head, which is extra hard. With good cultivation heads attain a weight of twenty to thirty pounds, and are of the finest quality.

Pkt. 5c; oz. 20c; 1 lb. 60c; 1b. \$2.00.

SAVOY CABBAGE

These are not as generally cultivated with us as in Europe, where the more delicate flavor of this type of cabbage is highly esteemed. The leaves are very much crumpled—that is, the tissue between the veins is larger than is sufficient to fill the space and bulged out and quite heavily wrinkled in accommodating itself to the limited space in which it has to grow. The tissue is the most delicate part of the cabbage, and the larger proportion of this delicate tissue renders the whole head of superior quality. They make the finest cabbages for summer and fall use in the home, or for near-by markets, being especially desirable for boiling and cold slaw.

Improved Perfection Drumhead Savoy

The finest variety for fall and winter use. The heads are quite large, very much crumpled, round, and very solid; the outer leaves being closely folded over the head, which blanches the inner portion to a snowy whiteness. Plants strong and vigorous in growth, with the outer leaves of a dark, rich green. Being so extremely vigorous and healthy, it withstands the attacks of the cabbage worm better than the ordinary type, while also possessing much greater sweetness and more delicate flavor.

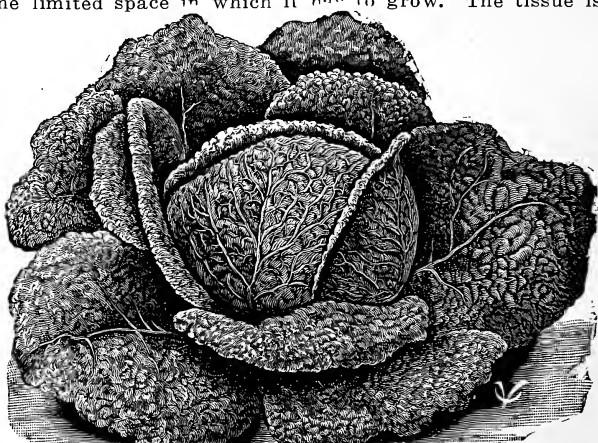
Pkt. 5c; oz. 20c; 1 lb. 60c; 1b. \$2.00.



SUPERIOR PREMIUM LATE FLAT DUTCH.

Genuine Danish Ballhead SEED GROWN IN DENMARK.

An extremely hardy imported cabbage, which is growing in popularity in America, having proven itself one of the very best Winter sorts. It is a very sure header, very solid and heavy, an extra good keeper and good seller. It is medium to late, but is generally grown as a late crop. The heads are not extra large, and without many outer leaves, so that it can be grown



IMPROVED PERFECTION DRUMHEAD SAVOY.

CARROTS

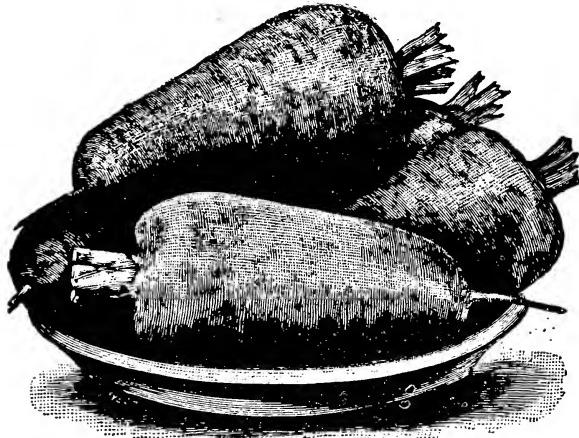
The Carrot is one of the most wholesome and nutritious of our garden roots, and deserves to be more extensively used, both for culinary and stock-feeding purposes. We urge our readers to give some of the early table sorts a trial. For feeding stock, especially horses and milch cows, the carrot cannot be surpassed, and it should be more largely grown by farmers for this purpose.

Culture.—While a sandy loam made rich by manuring the previous year is the best soil for the carrot, **any** good land, if thoroughly and deeply worked, will produce satisfactory crops. When it is possible to do so, it is advisable to sow as early in the spring as the ground is fit to work, though good crops may, in this latitude, be grown from sowings as late as June 15, but success from such a late planting is uncertain. For table use sow the smaller kinds as early as practicable in rows 16 to 18 inches apart. For field culture prepare the ground thoroughly and sow in drills 18 to 24 inches apart, using from one and one-half to three pounds to the acre, according to the distance between rows. Cover one-half to one inch deep and see to it that the soil is pressed firmly above the seed. As soon as the plants appear, use the cultivator or wheel hoe. Do not let the weeds get a start. Thin the smaller table sorts to 8 to 10 to the foot, and the field varieties to 3 to 6 inches apart in the row. For winter use gather and store like beets or turnips.

Early Scarlet Horn

A variety of carrot long and favorably known to all growers. It is not large, but is often used for early crop. It is sometimes used for forcing. Considered by many people to be the best early table sort. The flesh is fine grained and the color a deep orange. It has small tops, and grows well in shallow soil. It matures 8 to 10 days sooner than Long Orange.

Pkt. 5c; oz. 15c; 1 lb. 40c; lb. \$1.25.

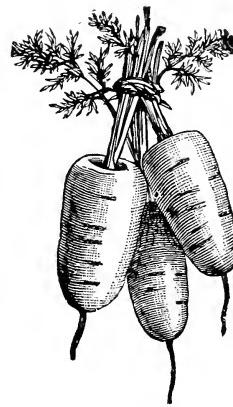


CHANTENAY, OR MODEL.

Guerande, or Ox Heart

Tops small for the size of the roots, which are comparaingly short, but often reach a diameter of seven inches, terminating abruptly in a small tap root. Flesh bright orange, fine grained and sweet. This is a desirable variety for soil so hard and stiff that longer growing sorts would not thrive on it. When young, excellent for table use, and when mature equally good for stock.

Pkt. 5c; oz. 15c; 1 lb. 50c; lb. \$1.50.

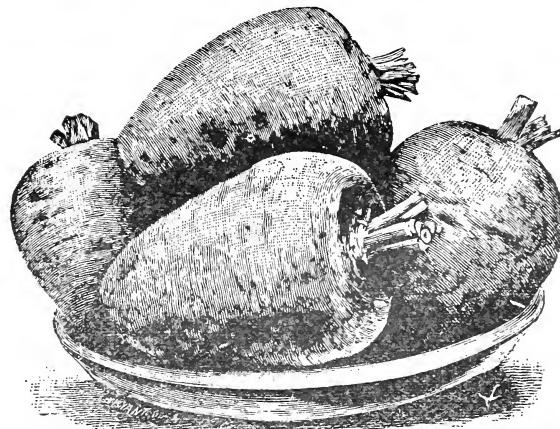


EARLY SCARLET HORN.

Chantenay, or Model

This variety is a very productive one. It has an extra large shoulder, is easily dug, and is desirable in all respects. It is a stump rooted sort, very smooth, fine in texture and of a beautiful, rich orange color. For table use it is by many considered to be the best of all, both on account of shape and quality. The flesh, when cooked, is very tender.

Pkt. 5c; oz. 15c; 1 lb. 50c; lb. \$1.50.

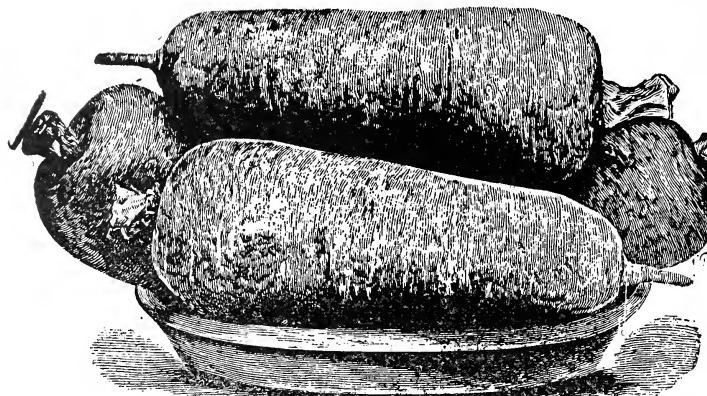


GUERANDE, OR OX HEART CARROT.

CARROTS

Continued

Danvers, Half Long



DANVERS, HALF LONG.

Grown largely on account of its great productiveness and adaptability to all classes of soil. Tops medium sized, coarsely divided. The smooth and handsome roots are deep orange, of medium length, tapering uniformly to a blunt point, flesh sweet, crisp, tender and of a deep orange color. Although the roots of this variety are short, they produce as large a bulk as the longer field sorts and are more easily harvested.

**Pkt. 5c; oz. 15c; 1 lb. 45c;
lb. \$1.50.**

Improved Long Orange

The most popular of the older sorts for farm use on mellow soil. An improvement obtained by years of careful selection of the best formed and deepest colored roots of the old Long Orange. Roots are comparatively shorter than the Long Orange, and smoother, but so uniform and true that the bulk of the crop will be greater.

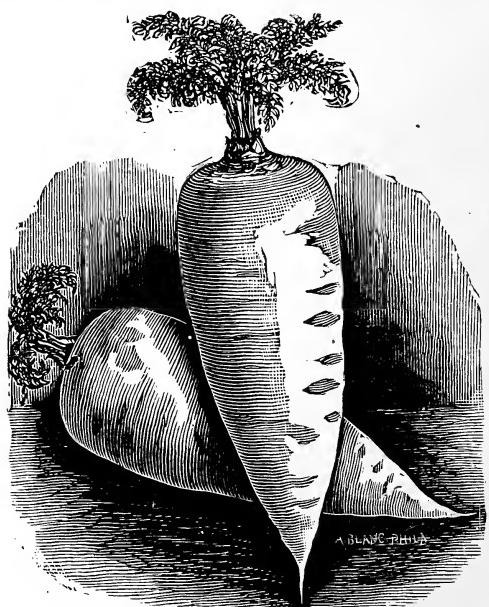
Pkt. 5c; oz. 15c; 1 lb. 45c; lb. \$1.50.

Improved Short White

We think this distinct variety is destined to take first rank as a field carrot, owing to its enormous productiveness and the ease with which it can be harvested. Roots half long, smooth, very heavy at the shoulder, but tapering regularly to the point; color light green at the crown, pure white below; flesh rich, white, solid, crisp and of excellent flavor. This variety is a real acquisition as a heavy yielding, easily harvested, white carrot, and is the best of this class; unexcelled for stock feeding.

Oz. 10c; 1 lb. 25c; lb. 90c.

Note.—The practice of feeding carrots to both horses and cattle in winter is to be encouraged. The roots make an excellent addition to the usual ration. Horses especially appreciate carrots in winter. The seed may be sown as late as July 1. Summer-sown seed should be carefully and firmly put into the ground, half an inch under the surface. Field carrots should be sown in rows 24 to 30 inches apart, thinning to 6 or 7 inches in the row, using 2 lbs. of seed to the acre. The winter storage is the same as for turnips or beets: either in soil-covered heaps in the field or in root cellars.



IMPROVED SHORT WHITE.

CAULIFLOWER

The Cauliflower, although one of the most delicious vegetables, is but little grown, except by professional gardeners, because of the erroneous notion that it is so difficult to grow—that only skilled gardeners can produce it. Anyone will be reasonably certain of success with this most desirable vegetable if he carefully follows the cultural directions given below.

Culture.—For spring and early summer crop sow in March or early in April, in hot-bed and transplant to cold frame when sufficiently large, and to the open ground as soon as danger of hard freezing is over. The plants endure a light frost. The soil for cauliflower should be like that for cabbage, but it is better if made richer than is ordinarily used for that crop. Give the plants thorough culture and keep free from worms with Persian insect powder. For late crop sow at same time as for late cabbage and treat in the same manner. It should be borne in mind that cauliflower **will not** head up well in dry, hot weather, and hence the sowings should be so regulated as to bring it to maturity either before the hot summer weather sets in or not until the cooler weather of the fall. If it receives at this time a liberal supply of water, the size and quality of the heads will be greatly improved. After the heads begin to form, draw the leaves over and pin or tie them together to protect the head from the sun and keep it white. The heads should be cut for use while the "curd" is compact and hard, as they soon become tough and bitter after they open and separate into branches.

Best Early Snowball

Our Cauliflower Seed is produced by the most experienced growers in Europe, in such localities as are best suited to its proper development, and the greatest care is taken to save seed from perfectly developed plants only.

Extensively grown for forcing or wintering over for early crop.

It is exceedingly early and hardy, and is one of the surest to make a solid, compact head.

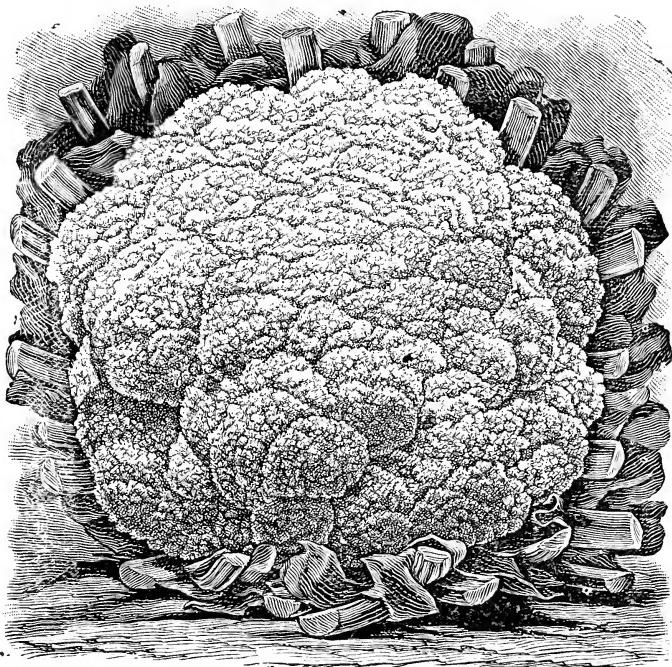
The best for late summer and fall crop.

Good seed is absolutely necessary for success in growing cauliflower.

Our seed is most carefully grown.

With reasonable care every plant will produce a fine head.

Henderson's Strain: Pkt. 25c; oz. \$4.00.



BEST EARLY SNOWBALL.

Extra Early Dwarf Erfurt

This variety is as early as early Snowball, and is very desirable for forcing, or for planting outdoors. Plants compact, with few narrow, upright leaves, and suited for close planting. Form solid compact heads, even under unfavorable conditions, and is therefore one of the most desirable for general use. Our stock of this is unsurpassed, and we assure our customers that it is as early as any catalogued as "earliest" or "first early."

Finest strain: Pkt. 25c; oz. \$3.00.

You obtain Best Results, when you sow "PURITY SEEDS"

CELERY

Culture.—Sow the seed (which is slow to germinate) in shallow boxes, or in a finely prepared seed bed out of doors, in straight rows, so that the small plants may be kept free from weeds. See to it that the seed is not covered too deep and that the bed is kept moist, almost wet, until the seeds germinate, as plenty of moisture is essential to get a satisfactory growth. When about two inches high, thin out and transplant so that they may stand three inches apart, and when the plants are four inches high, cut off the tops, which will cause them to grow stocky. The crop is usually made to succeed some earlier one, but in order to grow good celery the soil must be made as rich as possible, the essentials to success being very rich soil and plenty of water. If good plants are used they may be set out as late as the middle of August, but the best results are usually obtained from setting out about the middle of June or the first of July. The most desirable time will depend upon local climate, and is that which will bring the plants to maturity during cool, moist weather. In setting, prepare the broad, shallow trenches, about six inches deep and four feet apart, cutting off the outer leaves and **pressing the soil firmly about the roots**. When the plants are nearly full grown they should be "handled," which is done by one man gathering the leaves together while a second draws the earth about the plant to one-third its height, taking care that none of the earth falls between the leaves, as it would be likely to cause them to rust or rot. After a few days draw more earth about them, and repeat the process every few days until only the tons of the leaves are visible. Or it may be blanched by pressing the leaves together with two wide boards held in place by stakes. This is the method commonly used by market gardeners, but celery so blanched is more likely to become pithy than that blanched with earth. Care should be taken that the plants are not disturbed while they are wet or the ground is damp, as it would be sure to injure them. A part of the crop may be simply "handled," and then at the approach of severe freezing weather taken up and set out compactly in a dark cellar or an unused cold frame which can be kept just above the freezing point, and it will then gradually blanch so that it may be used throughout the winter. Should the plants begin to wilt, water the roots without wetting the stalks or leaves, and they will revive again.

Celery is sometimes grown by what is termed the "new process," which consists in making a spot as rich as possible, and there setting the plants six to eight inches apart each way. If the soil is very rich and there is an abundance of water, the plants will blanch each other and the product will be very white and handsome, but we think it is inferior in quality to that grown by the old method.

White Plume

While we are fully aware that this variety has great merit as an early market sort, being as early as any and very attractive when fit for use, yet we do not think that it compares favorably with the Golden Self-Blanching, either in flavor or solidity, or that it will remain in condition for use as long after it is earthed up.

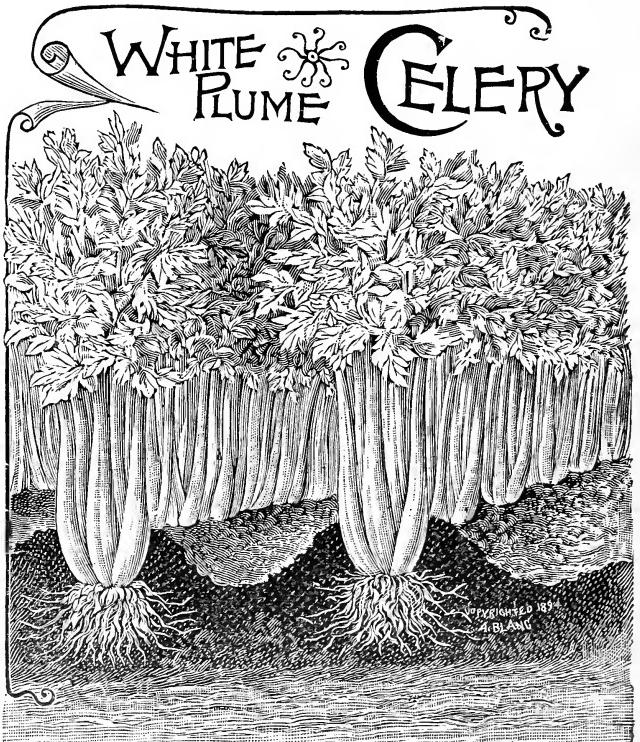
Plants light yellowish-green, with tips of leaves almost white.

As they mature, the inner stems and leaves turn white and require to be earthed up but a short time before they are in condition for use.

Pkt. 5c; oz. 20c; $\frac{1}{4}$ lb. 60c; 1 lb. \$2.00.

Winter Queen

The most popular of all as a late winter keeper, frequently being seen and selling at high prices in the month of May, after all other Celeries are done. It is, without doubt, the most valuable variety of Celery for winter and spring use ever introduced. It is also much stouter, thicker and heavier, with double the amount of heart of other sorts. The plant is beautiful in appearance, of close habit and compact growth, and blanches to a beautiful cream-white. Ribs perfectly solid, crisp and of delicious nutty flavor. Pkt. 10c; oz. 25c; $\frac{1}{4}$ lb. 75c; 1 lb. \$2.50.



Vegetables Grown from "PURITY SEEDS" are Prize Winners

CELERY

Continued

Golden Self-Blanching

THE STANDARD OF EXCELLENCE AS AN EARLY SORT.

Critical gardeners depend upon our stock of this sort to produce their finest early celery.

It certainly is far superior in quality to much that is sold and the planter who uses it once never cares to risk using any other. We have secured such stock by taking especial pains to develop one not only free from green and other deteriorated plants, but in which the comparatively short, thick stalks shall have the crisp, tender texture and nut-like flavor which makes this the best early sort.

Pkt. 5c; oz. 40c; 1 lb. \$1.25; 1b. \$4.00.

Evans' Triumph

THIS IS BY FAR THE BEST OF THE LATE VARIETIES.

The very large, solid, crisp, tender stalks are not only very beautiful, but of superb quality. When it is possible to secure such pure and well-bred stocks of Golden Self-Blanching, Winter Queen and Evans' Triumph Celery as we offer, there is nothing further to be desired, and every private garden should have them. No wide awake gardener will be without them.

Pkt. 5c; oz. 20c; 1 lb. 50c; 1b. \$1.75.



GOLDEN SELF-BLANCHING.



GIANT PASCAL.

Giant Pascal

In one sense this has proved as great an addition to our list as the Golden Self-Blanching itself, of which it is an offspring. We refer to the very high quality of the Giant Pascal, which has made it celebrated wherever quality is a prime consideration. It partakes of the sweet, nutty flavor of the Golden Self-Blanching, and, though the stalks are very large in diameter, they have no bitter taste whatever. The height is about two feet. The stalks are thick, solid and stringless, and almost as brittle as glass—fewer in number than in ordinary kinds of celery, but making full weight by reason of width, thickness and succulence. We do not think the color of any celery is better described by the word "ivory" than this one. It blanches easily and keeps well.

Pkt. 5c; oz. 15c; 1 lb. 45c; 1b. \$1.50.

Celeriac

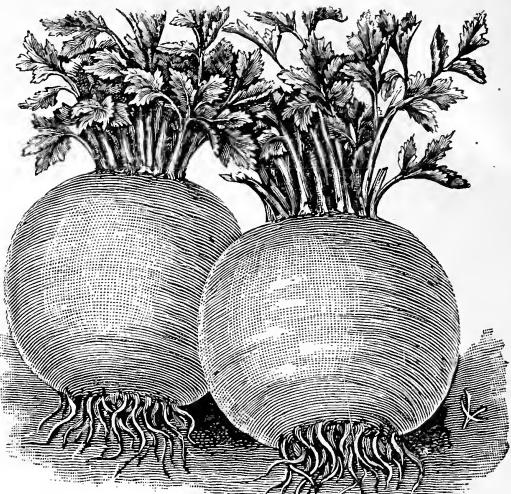
OR TURNIP-ROOTED CELERY.

Culture.—Sow the seed at the same season and give the same treatment as common celery. Transplant the young plants to moist, rich soil, in rows two feet apart and six inches apart in the row. Give thorough culture. As the roots are the edible portion of this vegetable, it is not necessary to earth up or "handle" it. After the roots have attained a diameter of two inches or over they will be fit for use. To keep through winter, pack in damp earth or sand and put in the cellar, or leave out of doors, covering with earth and straw, like beets or carrots.

LARGE SMOOTH PRAGUE, OR APPLE SHAPED.

An improved form of Turnip-Rooted Celery, producing large and smooth roots, which are almost round, and with very few side roots. Plants vigorous, with large, deep green foliage.

Pkt. 5c; oz. 15c; 1 lb. 45c; Ib. \$1.50.



LARGE SMOOTH PRAGUE.

CHICORY

LARGE ROOTED, OR COFFEE.—Our stock is the improved type, with very much larger, smoother, whiter and proportionately shorter roots than the old kind. The dried and prepared roots are used quite extensively as a substitute or adulterant for coffee. Sow the seed as early in the spring as the ground can be prepared, in a rather light, moderately rich soil, in drills fifteen inches apart for garden, and two to two and one-half feet for field culture. When the plants are sufficiently large, thin to four to six inches apart in the row. Keep clear of weeds, and in the fall dig the roots, slice them and dry in an apple evaporator or kiln constructed for the purpose. Where the roots are grown in quantity for the manufacture of the "prepared" chicory, they are usually brought to the factory in the "green" state and there dried in kilns constructed for that purpose.

Pkt. 5c; oz. 10c; 1 lb. 25c; Ib. 75c.

COLLARDS

A variety of cabbage known in different sections as "Cole," "Colewort" or simply "Greens." It is extensively used in the South, where it continues in luxuriant growth all winter.

GEORGIA, SOUTHERN, OR CREOLE.—We offer the true white or green stemmed sort so extensively used in the South, where it furnishes an abundance of food for man and beast. Forms a large, loose, open head, or a mass of leaves on a tall stem. Freezing does not injure but rather improves their quality. Sow thick in drills, in rich ground, transplanting when four inches high, or sow in drills where the plants are to remain, and thin to two or three feet apart in the row when of proper size.

Pkt. 5c; oz. 10c; 1 lb. 30c; Ib. \$1.00.



CORN SALAD.

CRESS—Curled or Pepper Grass

This small salad is much used with lettuce, to the flavor of which its warm, pungent taste makes a most agreeable addition. The seed should be sown in drills about sixteen inches apart on very rich ground, and the plants well cultivated. It may be planted very early, but repeated sowings are necessary to secure a succession. Keep off insects by dusting with Pyrethrum Powder.

Pkt. 5c; oz. 10c; 1 lb. 20c; Ib. 60c.

Corn Salad—*Fetticus* or Lamb's Lettuce

This small salad is used during the winter and spring months as a substitute for lettuce and is also cooked and used like spinach. In warm weather the plants will mature in four to six weeks. Sow the seed in shallow drills about one foot apart, during August and September. If the soil is dry it should be firmly pressed over the seed in order to secure prompt germination. On the approach of severe cold weather cover with straw or coarse litter. The plants will also do well if the seed is sown very early in the spring, and like most salad plants, are greatly improved if sown on **very rich** soil; indeed, the ground can scarcely be made too rich for them.

Pkt. 5c; oz. 10c; 1 lb. 20c; Ib. 60c.



CORN—Sweet or Sugar

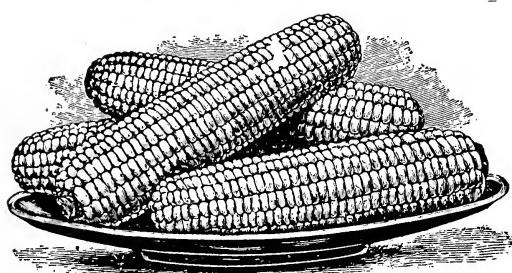
Culture.—A rich, warm, alluvial soil is best, but excellent sweet corn can be raised on any good ordinary soil if it is deeply and thoroughly worked before planting. Give frequent and thorough, but shallow, cultivation, until the tassels appear.

Mammoth White Cory

The Largest and Best Extra Early Sweet Corn.

The stalks are no larger than those of the White Cob Cory, but each stalk furnishes two or more large, fine-shaped ears, which are fit for use before those of any other sort. The ears are twelve-rowed, very symmetrical and handsome, with no opening between the rows at the base. The grain is large, broad, very white and of remarkably good quality for such an early sort. The beauty and quality of this variety gives it ready sale even when the market is over-stocked.

Pkt. 10c; pt. 20c; qt. 35c, postpaid. By Express, pk. \$1.25; bu. \$4.50.



CROSBY'S EARLY.

Crosby's Early

A most excellent variety, remarkably early and of the best flavor. Ears of medium size, twelve-rowed or more, with short, nearly square grains, which are very tender and sweet. This is the sort so largely grown in Maine for canning, and it is rather the use of this variety than any peculiarity of soil that has given Maine sweet corn its reputation for quality.

Pkt. 10c; pt. 20c; qt. 35c, postpaid. By Express, pk. \$1.25; bu. \$4.50.

Early Minnesota

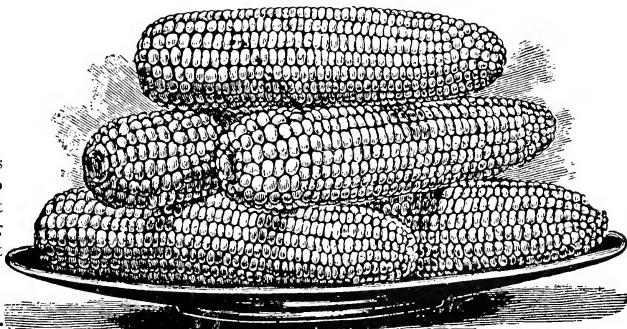
This old and deservedly popular variety is one of the best early sorts for the market garden. Stalks four to five feet high, with no suckers, and bearing one or two ears well covered with husks; ears long, eight-rowed kernels very broad, sweet and tender, not shrinking much in drying. By careful selection we have developed a stock of this standard variety which is remarkably uniform, and in which all the good qualities that have made this variety so popular are intensified.

Pkt. 10c; pt. 20c; qt. 35c, postpaid. By Express, pk. \$1.25; bu. \$4.50.

Early Mammoth Sugar

This tall-growing sweet corn has not only the largest ears, but is also one of the very sweetest known. It is particularly good for canning purposes, and is an excellent sort for the garden.

Pkt. 10c; pt. 20c; qt. 35c, postpaid.
By Express, pk. \$1.15; bu. \$4.50.

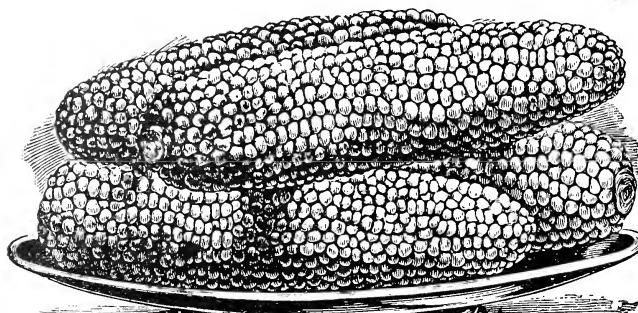


EARLY MAMMOTH SUGAR.

When corn by the pint or quart is ordered by express or freight, 5 cents per pint or 10 cents per quart may be deducted from the prices quoted. Pecks and bushels are sent by freight or express at purchaser's expense.

CORN—Sweet or Sugar

Continued



COUNTRY GENTLEMAN, OR IMPROVED SHOE PEG.

Country Gentleman or Improved Shoe Peg

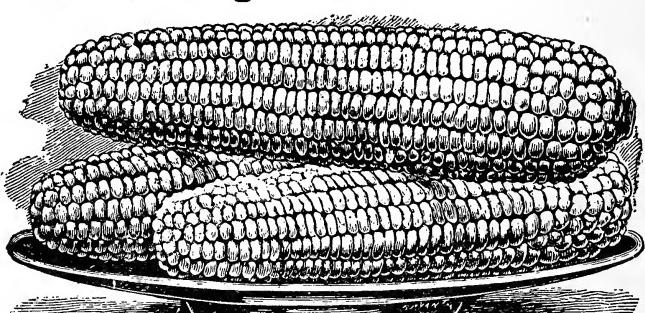
This is a midseason corn. Ears of quite large size, and frequently three on a stalk. Grains irregularly set on cob. Cob remarkably small, giving great depth to the kernel. For delicious flavor and sweetness we do not know of anything that can surpass this variety. We recommend it especially to private gardeners, or for choice retail trade.

Pkt. 10c; pt. 20c; qt. 35c, postpaid. By Express, pk. \$1.35; bu. \$5.00.

Stowell's Evergreen

Every market gardener and every private gardener in the land knows this grand old sweet corn. It is in high esteem for main crop or late use, being in especial favor with truckers and canners. The ears are of extra large size, are tender and toothsome, with deep grain, and remaining a long time in edible condition. Stowell's Evergreen is one of the most productive, profitable and most popular corns on the market, and will long be included among leading standard sorts.

Pkt. 10c; pt. 20c; qt. 35c, postpaid. By Express, pk. \$1.35; bu. \$5.00.



STOWELL'S EVERGREEN.

FIELD CORN Minnesota White Flint

This is a very early 8-10 rowed White Flint Corn, remarkable for its long ears, which are 14 to 16 inches long, with small cobs. It is an extra heavy yielder; each stalk will bear two and three good-sized ears. The ear is a perfect shape, with straight and even rows, which are filled from tip to tip.

Qt. 25c, postpaid. By Express, pk. 75c; bu. \$2.50.

King of the Earlies

The originator says: "This is the earliest and finest Dent Corn—bright orange color, short, leafy stalks, medium sized ears, small red cobs, deep grains. Adapted for planting in high altitudes, and will mature a crop farther north than any other known variety; will shell easier and can be husked earlier than any other sort."

Qt. 25c postpaid. By Express, pk. 75c; bu. \$2.50.

POP CORN Monarch Prolific Eight Rowed

The most prolific popcorn in cultivation. Its reported yields would seem fabulous if not attested by reliable growers. The ears are often 8 to 10 inches long, well filled with bright, handsome white grains. The stalk is of vigorous growth, reaching a height of six feet. This corn for popping is altogether unsurpassed, being perfect in this respect. The popped grains are of a delicious flavor.

Pt. 20c; qt. 35c, postpaid. By Express, pk. \$1.25.

Mammoth White Rice

Everybody knows the old variety named White Rice. Our strain is an improvement, with larger ears, and the ears more abundantly produced. Six ears on a stalk is not a rare performance for this prolific and profitable popcorn. The grains are sharply pointed, and the ear is a handsome one. Most excellent for popping.

Pt. 20c; qt. 35c, postpaid. By Express, pk. \$1.00.

CUCUMBER

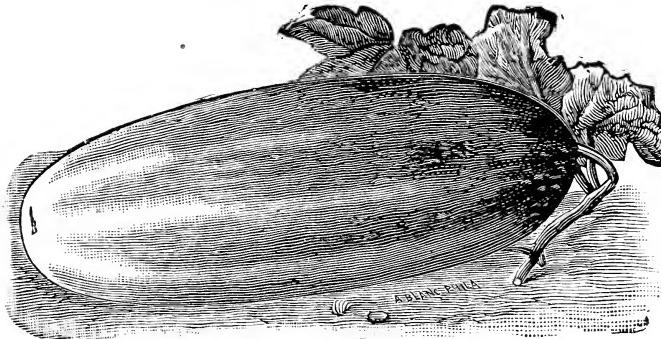
This is one of the vegetables that can be grown to perfection by anyone who can control a few square yards of soil that is fully exposed to the sun. The fruit is so much better when gathered fresh from the vines than it is when obtained in the market that every family should be supplied from its own garden.

Culture.—In order to obtain the largest yield of cucumbers the soil should be well enriched with well-rotted manure, but an abundance of good fruit can be raised on any rich garden soil. Plant the seed in rows six feet apart and four to six feet apart in the row, dropping fifteen to twenty seeds in a hill. After the plants begin to crowd and the striped beetles are pretty well gone thin to three plants to the hill. Give frequent but shallow cultivation, until the plants make runners so long that this is impracticable. In field culture, plow furrows four feet apart and similar ones at right angles to the first. At each intersection drop a shovelful or more of **well-rotted** manure, which should be **well mixed** with soil, forming a broad, flat hill, four to six inches above the surface. Many growers omit ever fourth row, thus forming paths for the distribution of manure and gathering the fruit. In many sections where earliness is very important, market gardeners start plants in boxes made like the ordinary berry box, but without the raised bottom. The boxes are set in hot-beds or cold frames filled with rich, friable soil, and the seed planted. When danger of frost is over, the plants are set in the open ground, the boxes being cut away so the roots are not disturbed at all.

The plants are liable to attack from the striped cucumber beetles, which are so numerous in some cases as to destroy them. These may be kept off by frequent dusting with air-slacked lime, soot or sifted ashes diluted with fine road earth. Care should be taken not to use too much of any of the above materials, for if used too freely they will kill the vines. The best protection against injury is a vigorous and rapid growth of the young plants.

Pick all the fruit before it begins to ripen, as the vines will cease setting fruit as soon as any seed begins to mature. In gathering for pickles, cut stems, instead of pulling the fruit off, and be careful not to mar the fruit in any way, for if the skin be broken the pickles will not keep so well.

Improved Early White Spine



This cucumber cannot be praised too highly. It is nothing more nor less than an extra fine type of what is unquestionably the best and most widely grown variety in America. It is unsurpassed as a table and market sort, and is also used for pickling. No other kind exceeds it in productiveness, and it is equally good for forcing under glass or growth in the open air. The fruit is from 5 to 7 inches long and 2 to 3 inches in diameter. Color a beautiful light green.

Pkt. 5c; oz. 15c; 1 lb. 40c;
lb. \$1.25.

Early Short Green, or Early Frame

An excellent sort both for table use and for pickling. Plants very vigorous and productive. Fruit straight, handsome, small at each end, bright green, lighter at the blossom end, with crisp, tender flesh, and makes excellent pickles. Our stock is very superior.

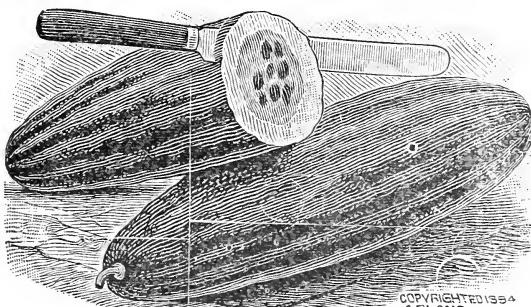
Pkt. 5c; oz. 10c; 1 lb. 30c; lb. \$1.00.

Davis Perfect

This popular new variety is well worthy of praise. The long, even fruits are of fine form, with an intensely dark rich green skin. With very few seeds the solid white flesh is of superb quality for slicing. So handsome and regular are the fruits that they bring an extra price on market—often being taken for "hot-house grown." The veins are of strong growth and quite prolific. Pkt. 5c; oz. 15c; 1 lb. 40c; lb. \$1.25.

Cumberland Pickling

The vines are hardy, of strong, vigorous growth, and **fruit very freely**. The young cucumbers are thickly set with small spines, and possess the distinctly roughened surface so much desired for small pickles. The large fruits average nine to ten inches in length by two and a half inches in diameter, with full rounded ends, and are of good quality for slicing. Pkt. 5c; oz. 15c; 1 lb. 40c; lb. \$1.25.



DAVIS PERFECT.

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A. BLANC.

CUCUMBERS

Continued

Boston Pickling or Green Prolific

This is one of the most popular pickling cucumbers. It is of the very best form and quality, and has yielded at the rate of over 200,000 pickles per acre. The fruit is uniform in shape and appearance, and its enormous productive ability makes the variety a favorite one with pickle growers and commercial gardeners.

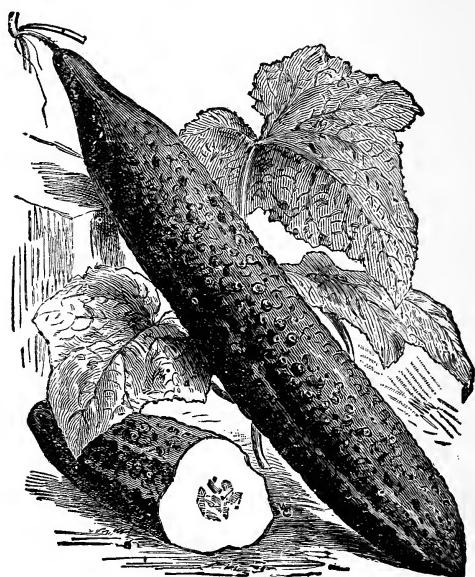
Pkt. 5c; oz. 15c; 1 lb. 40c; 1b. \$1.25.



Improved Long Green

This fine cucumber grows from 12 to 16 inches or more in length and is of superior quality. The young fruit is very largely used for pickling, and it is a standard sort for that purpose. Full sized cucumbers are in great favor for making the so-called sweet pickles. Vines are strong growers, and the fruit is always produced in great abundance, making it one of the most productive varieties in cultivation. We have an improved and very excellent strain, which has for many years been decidedly popular with our customers.

Pkt. 5c; oz. 15c; 1 lb. 50c; 1b. \$1.50.



Gherkin for Pickling

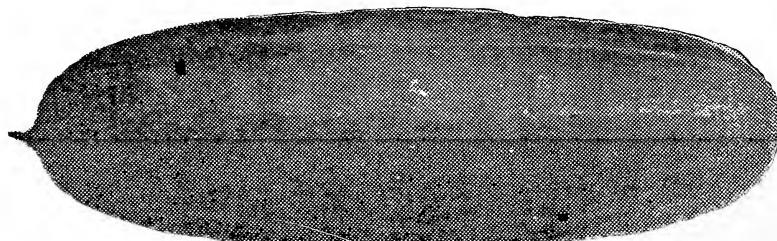
A very small, oval, prickly variety, quite distinct from all others. It is grown exclusively for pickles; is the smallest of all varieties, and should always be picked when young and tender. The seed is slow to germinate, requiring usually from two to three weeks.

Pkt. 5c; oz. 15c; 1 lb. 40c; 1b. \$1.25.

Klondike

The Finest Flavored of All. Most Beautiful and Best Long Green Cucumber.

Vines produce an enormous crop, being of unusually vigorous growth, with large, thick, heavy leaves which withstand the attacks of insects. Perfectly smooth and green, the handsome fruits measure eight to ten inches long. They are always straight—**never turn yellow,**

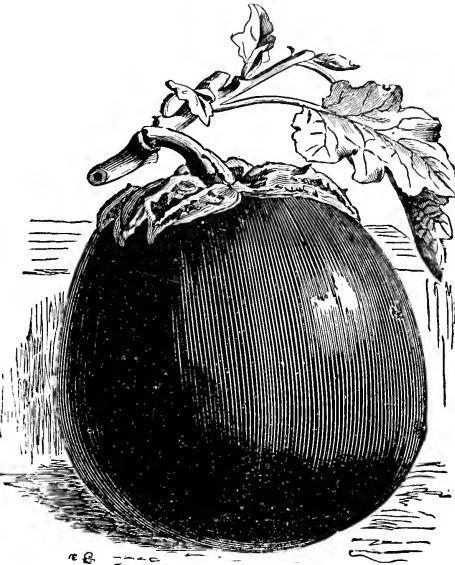


and are very solid. The flesh is a greenish white, firm, crisp and of most delicious flavor. The flesh is unusually thick and seed space extremely small. Klondike is **absolutely unequalled.** With gardeners everywhere this **most handsome of all table cucumbers** has become their main crop, both because they will bring an **extra price** on the market, are of the **white spine** type, long retaining their **dark green color**—and because the vigorous vines are so wonderfully prolific.

Pkt. 5c; oz. 15c; 1 lb. 40c; 1b. \$1.25.

EGG PLANT

Culture.—Egg Plant seed germinates slowly, and should be started in strong heat, for in this, as in all sub-tropical plants, it is of importance to secure a rapid and continuous growth from the first, the plants never recovering from a check received when young. When the plants have formed two rough leaves, transplant to three or four inches apart. When the ground is warm, and all danger not only from frost but from cold nights, is past, harden off the plants by gradual exposure to the sun and air, and decrease the supply of water, then carefully transplant into the open ground, setting the plants two and a half feet apart. If needed, shade the young plants and protect them from the potato bug which will often destroy them. Some seasons Egg Plants will fail to set fruit, or will not begin bearing until too late to mature, no matter how faithfully they may have been cared for. This is especially likely to happen if the summer is cool and rather moist. We know of no certain remedy for it, though pinching off the ends of the branches after the plants begin to bloom, and not letting more than two or three fruits set, is a good practice.



BLACK BEAUTY.

Black Beauty

Earliest and Best of All Large-Fruited Egg Plants. It is valuable alike to the private planter and the extensive grower for market. **Black Beauty** produces fruits **fully as large** and ready for use **ten days to two weeks earlier** than the New York Improved Purple. The grand large fruits are thick—of most attractive form, as shown in the illustration. The skin is a **rich, lustrous purplish black**. The fruits set freely and **develop quickly**, so that the entire crop can be gathered before there is any danger of frost. We are sure that truckers generally will make their main planting of Black Beauty as soon as they learn its unusual value.

Pkt. 5c; oz. 50c; 1 lb. \$1.50; Ib. \$5.00.

New York Improved Large Purple Spineless

The large size and high quality of its fruit and its extreme productiveness make it the most profitable for market gardeners. Plants large and spreading; foliage light green; fruit very large, oval; color dark purple. Plants usually ripen four to eight large fruits. Bear in mind that our stock is spineless, which is a great advantage in handling.

Pkt. 5c; oz. 40c; 1 lb. \$1.25; Ib. \$4.00.

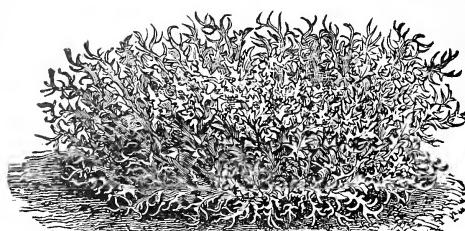
Early Long Purple

This is one of the earliest and most productive varieties. Fruit long, dark, rich purple, and of fine quality.

Pkt. 5c; oz. 25c; 1 lb. 75c; Ib. \$2.50.

IF YOU WANT GOOD CROPS PLANT "PURITY SEEDS"

ENDIVE



GREEN CURLED.

Endive may be grown at any season of the year, but is more generally used late in the fall. Sow the seed in June or July, in drills fourteen inches apart, and when well started thin the plants to one foot apart. When nearly full grown, tie the outer leaves together over the center, in order to blanch the heart of the plant. By covering every few days a succession may be kept up.

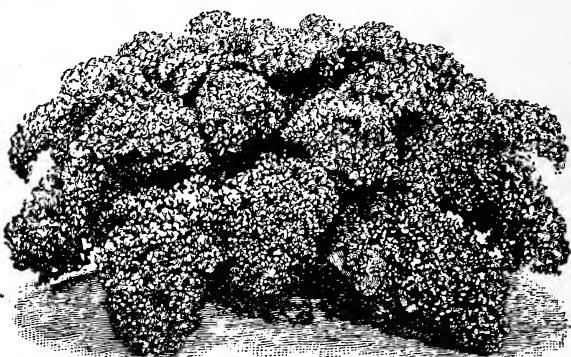
GREEN CURLED

This is the hardiest variety, and very desirable for the home and market garden. The deep green leaves are beautifully cut and curled, easily blanched, and become very crisp, tender and fine flavored. **Pkt. 5c; oz. 10c; 1 lb. 30c; Ib. \$1.00.**

KALE

Borecole, Kale and German Greens are general terms applied to those classes of cabbages that do not form heads, but are used in their open growth. Some of the varieties are the most tender and delicate of any of the cabbage tribe. They are hardy and are not injured by the frost.

Culture.—As far north as New York they may be sown in September and treated like spinach, or they may be planted and treated like late cabbage, and will continue growing until very late in the season. In the South they will live and grow throughout the winter without protection. It is better not to cut or handle them when frozen, but if this is unavoidable, thaw them out in cold water. The young shoots which start up in the spring from the old stumps are very tender and make excellent greens.



DWARF CURLED SCOTCH.

Dwarf Curled Scotch or German Greens

Plant low and compact, but with large curled leaves, cut and crimped until the whole plant resembles a bunch of moss. It would be well worthy of cultivation simply for its beauty. One of the best sorts for use, and when well grown and cooked is one of the most palatable of vegetables. **Pkt. 5c; oz. 10c; 1 lb. 30c; Ib. \$1.00.**



KOHL RABI

The Kohl Rabi is a vegetable between the cabbage and turnip, and combines the flavor of each. The edible part is a turnip-shaped bulb formed by the enlargement of the stem. When used for the table this should be cut when quite small, as it is then very tender and delicate, but if allowed to reach its full size it becomes tough and stringy.

Culture.—Sow in light, rich soil, as early as possible, in drills sixteen inches apart, and, when well established, thin to six inches apart in the row. One or two plantings at intervals of ten days will give a succession until hot weather, when they fail to grow well; but plantings may be made the latter part of July for fall use.

Early White Vienna

Very early; small, handsome, white bulb. This is the very best early variety for table use.

Pkt. 5c; oz. 20c; 1 lb. 60c; Ib. \$2.00.

LEEK—Large American Flag

Belongs to the onion family. Sow the seed and care for the young plants as for onions, but they need a little more room in order to develop fully. When the young plant is about the size of a goose quill, transplant to a prepared bed in rows one foot apart, and four or five inches in the row. Set the roots deep and draw the earth to them when cultivating, so that they may be well blanched by the time they are fit for use. A variety which has become very popular with some market gardeners on account of its being larger than the London Flag. **Pkt. 5c; oz. 15c; 1 lb. 40c; Ib. \$1.40.**

LETTUCE

Culture.—Lettuce ought to be grown rapidly, and therefore it should be sown in a rich, thoroughly prepared soil. For early crop sow under glass from November to February, and thin out as necessary to prevent crowding. Keep at a moderate heat, and give all the air and light possible. For early outdoor culture, start plants in the fall, protecting them as needed with frames or coarse cotton, or start under glass from January till March and harden off before setting in the open ground. This should be done as soon as the ground and weather permit. For general crop, sow outdoors as early in spring as the ground can be worked, in drills eighteen inches apart, and thin the young plants to four inches apart in the row. As the plants begin to crowd, thin them out and use as required. In this way a much longer succession of cuttings may be had from the same ground. Sow at intervals of from two to three weeks throughout the summer for a continuous crop. In this, as in every other garden crop, thorough cultivation is essential.

We make a careful trial of the various varieties of lettuce, both old and new, each season, and feel that our list embraces all the kinds that are necessary to give a constant supply of the best quality.

Varieties marked A are particularly adapted for culture under glass and for early spring use. Those marked B are sometimes grown under glass, but are especially desirable for outdoor summer culture.

CABBAGE OR HEADING LETTUCE

Early Tennis Ball

A (Seed Black). A first class variety and one of the best head lettuces for forcing under glass or early planting outdoors. Plants medium size, having thick, dark green leaves, and when well grown forming very solid heads, the inner leaves being blanched to a rich creamy white, and exceedingly crisp, tender and rich flavored. Not of much value for outdoor culture, as it runs up to seed quickly in hot weather. This is also known as Stone Tennis Ball, on account of its exceedingly solid head.

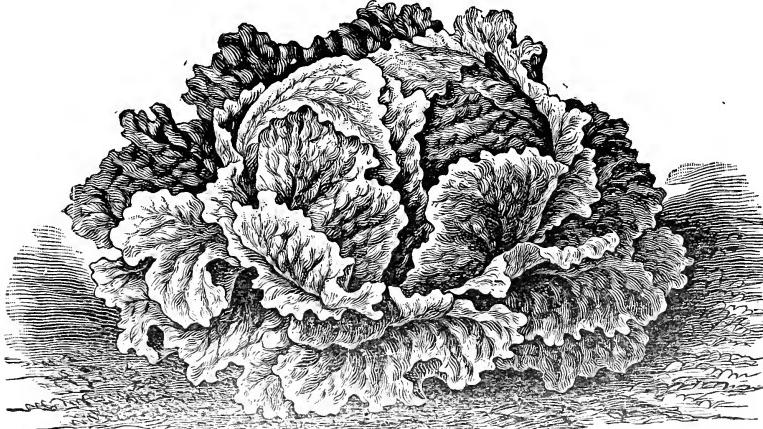
Pkt. 5c; oz. 10c; 1 lb. 30c; Ib. \$1.00.

Big Boston

A (Seed White). A very popular variety with those gardeners who want a large heading, forcing sort, and also for outdoor winter culture. The plants are large, very hardy and vigorous, with broad, comparatively smooth thin and very hard leaves, which are bright, light green in color, and when well grown are quite tender. Indoors this forms a solid head, while outside it is less distinctively a heading sort. This is grown in the South as a winter lettuce.

Pkt. 5c; oz. 10c; 1 lb. 30c; Ib. \$1.00.

Improved Hanson



IMPROVED HANSON LETTUCE.

B (Seed White). This is the most popular lettuce on our list, and its superior is not on the market. Every year increases the already wide demand for our improved Hanson strain. It is an ideal lettuce in all respects. The slightly curled leaves are of a beautiful green color, while the inner head presents a white appearance and is as tender and crisp as though blanched. It forms a very large head, sometimes exceeding five pounds in weight. It is wholly free from bitter taste, having a rich and sweet flavor, even to the outer leaves. It resists heat and drought wonderfully well, and is a perfect open air lettuce for amateurs and market gardeners. It cannot be overpraised, is the verdict of our many customers who plant and depend upon it annually. Pkt. 5c; oz. 10c; 1 lb. 30c; Ib. \$1.00.

LETTUCE

Continued

Salt Lake Market

Very Large, Extremely Crisp, Hard Heading and Extra Long Standing

B (Seed White). This Grand "New Lettuce" is the best introduced in years. The plants grow to a very large size, fully as large as the Deacon or San Francisco Market, are lighter in coloring and much sweeter and milder in flavor.

In good soil, with ordinary cultivation, the plants grow **twelve inches across**, and make large, closely folded heads fully eight inches across. The large outer leaves are a light green and grow closely about the head. The large heads are slightly flattened at the top and closely folded, so that the **interior leaves are blanched to a pure white and are always crisp and brittle.**

While essentially a mid-summer variety, this new lettuce is equally desirable for early spring planting or for fall use. In cool weather the heads grow to a larger size than they do during the summer, and remain in a fine condition for table use much longer than will the smaller heads of the earlier sorts.

Pkt. 5c; oz. 15c; $\frac{1}{4}$ lb. 40c; lb. \$1.25.



SALT LAKE MARKET.

California Cream Butter or Royal Summer Cabbage

A (Seed Brown). A strong growing sort, with large, green leaves, sometimes marked with brown dots. It forms a very solid head of rich, creamy yellow leaves, which are very thick, tender and of splendid quality. This sort is very hardy and is sometimes called Winter Lettuce.

Pkt. 5c; oz. 10c; $\frac{1}{4}$ lb. 30c; lb. \$1.00.

San Francisco Market or Deacon



DEACON LETTUCE.

B (Seed White). This magnificent butter lettuce is unsurpassed for family garden or for market. With The Deacon even the amateur gardener can raise fine, solid, nicely blanched heads equal to any the market affords. In our climate seed should be sown during the spring for early summer use and during August for fall heading. It stands hot weather better than any other of the rich butter varieties, and seldom becomes acrid in flavor, even under the greatest summer heat. Plants grow quickly and make firm heads, nearly as large and tight as a cabbage, there being but a few outer leaves when the head is fully grown. The heads are light green outside, while the inner blanched portion is a beautiful cream-yellow of delicious rich buttery flavor.

Pkt. 5c; oz. 10c; $\frac{1}{4}$ lb. 30c; lb. \$1.00.

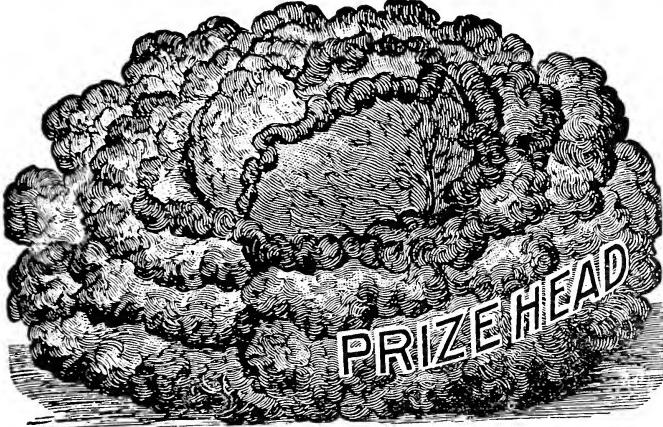
LETTUCE

Continued

Lettuce, Curled or Loose Leaved

Grand Rapids

A (Seed Black). As a lettuce for greenhouse forcing, this variety undoubtedly stands at the head of the list, being of quick growth, little liable to rot, and standing for some days after being fit to cut. The plant is upright, and forms a loose head or cluster of large, light yellowish-green leaves, slightly crimped and blistered and rather thin. It will stand shipping long distances better than most sorts. **Pkt. 5c; oz. 10c; 1 lb. 25c; lb. 80c.**



Early Prize Head

B (Seed White). This old standard variety is still the best of the large, thin-leaved, clustering sorts for the home garden, but it is not a good kind to ship long distances, as the leaves are so tender that they are easily spoiled in handling. The leaves are very large, crimped, bright green tinged with brownish red, and are exceedingly tender, crisp and sweet, forming a large, loose head.

Pkt. 5c; oz. 10c; 1 lb. 25c; lb. 80c.

Denver Market

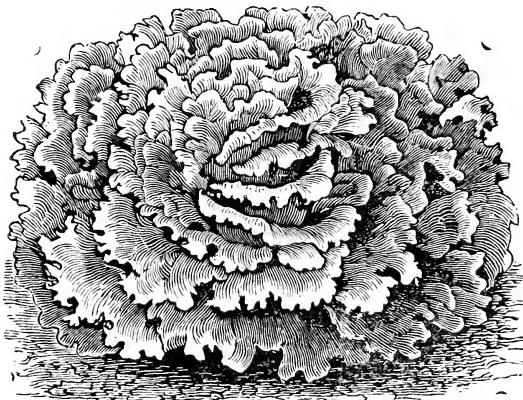
B (Seed White). An early variety of great merit. Forms large, solid heads of a light green color, and is slow to run to seed. The leaves are beautifully curled and crimped, and are tender and fine flavored. Its peculiar Savoy-like markings distinguish it from all other varieties.

Pkt. 5c; oz. 10c; 1 lb. 30c; lb. \$1.00.

Early Curled Black Seed Simpson

B (Seed Black). The best of the non-heading lettuces. An old and popular standard sort, of large size and highest quality. It may be sown thickly and cut when the plants are very young. Leaves broad, forming something of a head, and are frilled and blistered. Light green in color with inner leaves almost white, tender and well flavored, and exceedingly sweet; good for forcing under glass or for spring and early summer culture in the open air. Resists heat and remains long in edible condition. We can recommend our strain of Black Seeded Simpson to any one desiring a first-class lettuce.

Pkt. 5c; oz. 10c; 1 lb. 25c; lb. 80c.



Lettuce—Cos or "Celery"—"Salad Romaine"

The Cos Lettuces are distinct from the preceding sorts in having long, narrow spoon-shaped leaves, which usually fold into loose, sugar loaf shaped heads. When the plants do not "head" naturally during very dry weather, the tips of the leaves may be gathered together and loosely tied, which will blanch the interior. On account of their exceeding crispness, tenderness and delicate flavor, they are becoming more and more popular in this country.

Early White Self Folding

(Seed White). A distinct Cos Lettuce which does not need tying up. The leaves are yellowish-white in color, long, narrow, upright, folding into a solid head like that of an Early York Cabbage, and very crisp and tender. This is truly a self-blanching lettuce of superior flavor. Sold also as Trianon. **Pkt. 5c; oz. 10c; 1 lb. 25c; lb. 80c.**

MUSK MELONS

Culture.—Cultivate as recommended for cucumbers except that the hills should be six feet apart. Rich earth for the young plants is far better than manure, but if the latter must be used see that it is well rotted. If the plants grow very rank, more and finer fruit will be secured by pinching off the ends of the shoots when about three feet long. The quality of melons of all varieties is largely dependent upon conditions of growth and ripening. Unhealthy vines or unfavorable weather produces fruit of comparatively poor flavor.

GREEN FLESHED VARIETIES

The Great Rocky Ford Musk Melon

Pollock Strain

Most fashionable Cantaloupe on the American Market

Rocky Fords are certainly famous in the fancy markets, and are great sellers. They are of convenient size, and their firmness and shape favor them as shippers. As to quality, they appeal to the taste of epicures everywhere, and hence are in brisk demand, and find a prominent place on counters and shelves of fashionable fruit stores and market stands. The melon is oval in shape, slightly ribbed and covered with a coarse netting. The flesh is thick, green in color, inclining toward yellow at the center, and has a most appetizing flavor and aroma, and is very sweet and juicy. Flesh is both tender and firm; tender enough for the table and firm enough to stand shipment. The rind is elastic, but not hard. It is unquestionably one of the finest early melons and best for market gardeners and shippers as well as for the home garden. Best and purest strain of seed, grown especially for us at Rocky Ford, Colorado.

Pkt. 5c; oz. 10c; 1 lb. 30c; Ib. \$1.00.



THE GREAT ROCKY FORD.

Baltimore Market

Also called Acme or Baltimore Citron. Quite early and very large and showy; pointed at the ends, strongly netted and with thick green flesh of rich flavor and aroma. It is in brisk demand by hotels and restaurants in the Eastern cities during its season, on account of its superior table qualities. It is as well suited to the amateur as to the market gardener.

Pkt. 5c; oz. 15c; 1 lb. 50c; Ib. \$1.50.

Anne Arundel

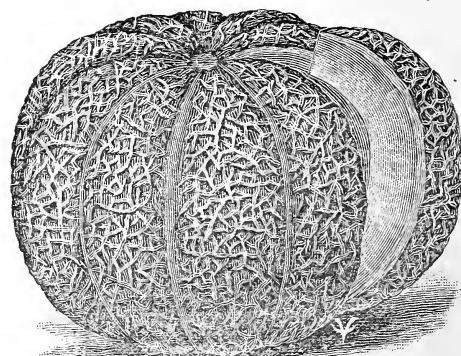
This is an improvement on the well-known Acme or Baltimore Market, growing to double the size, with thicker green flesh. It is ready for picking immediately after the extra early sorts, is a heavy yielder and bears shipment well, its oblong shape enabling it to resist pressure much better than the rounder melons. A specially valuable quality is the hardness of the vine and its freedom from the blight. It will often continue to bear good fruit when other vines have entirely succumbed to unfavorable weather.

Pkt. 5c; oz. 15c; 1 lb. 50c; Ib. \$1.50.

Extra Early Hackensack

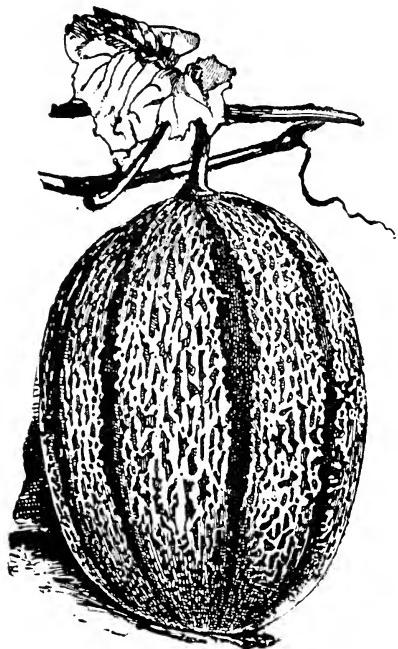
We offer under this name a very distinct stock, different and much superior to that often sold as Extra Early Hackensack. The fruit is medium sized, nearly round, with deep ribs and very coarse netting. The flesh is green, a little coarse, but very juicy and sweet.

Pkt. 5c; oz. 15c; 1 lb. 40c; Ib. \$1.25.



EXTRA EARLY HACKENSACK.

ORANGE FLESHED VARIETIES



Defender Musk Melon

A splendid variety. It is one of the very best yellow-fleshed sorts, and in some respects is far superior to any of this class. The medium sized fruit is oval in shape, slightly ribbed, covered with gray netting. The flesh is firm, fine grained, rich, deep yellow, darker than that of the Osage, and of higher flavor. The flesh extends to the rind and retains its color and quality quite to the outer shell, which though thin, is very hard and firm, so that one can remove the edible portion with a spoon, leaving a rind no thicker than that of an orange. The vine is vigorous and very productive. The fruit, because of the hard, firm rind, keeps and bears shipment remarkably well. We know of no yellow fleshed sort so desirable for either the home or market garden.

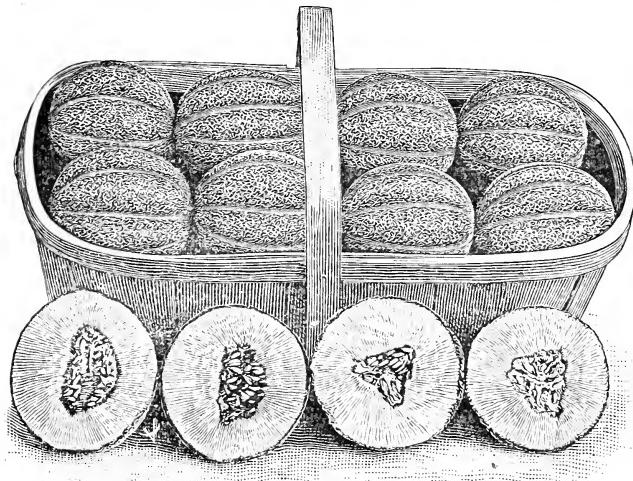
Pkt. 5c; oz. 15c; 1 lb. 40c; lb. \$1.25.

Osage or Improved Miller's Cream

This melon has made its way into public favor from the market rather than the garden, and is highly prized by those who like an exceedingly high flavored melon. It is medium sized, oval, slightly ribbed, dark green in color, covered more or less with shallow netting. The flesh is deep salmon color and very thick, there being but a slight cavity in the center of even the largest fruit. A favorite variety for the market. **Pkt. 5c; oz. 15c; 1 lb. 40c; lb. \$1.25.**

Burrell Gem

Unsurpassed in Quality and Unexcelled in Shipping

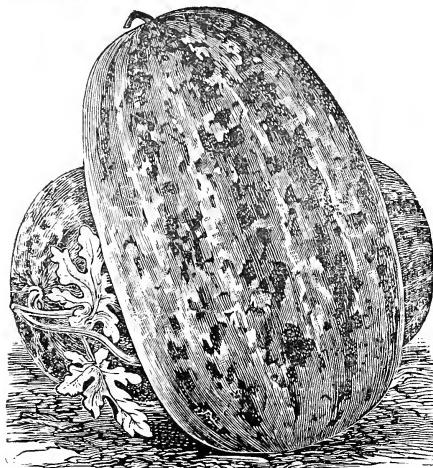


This is an orange fleshed Netted Gem or Rocky Ford. We have in the Burrell Gem a small musk melon with the very thick, orange flesh and splendid quality of the Defender, and possessing the characteristic netting, shape, size and shipping quality of Netted Gem or Rocky Ford. Combining all the good qualities of these two fine varieties. We think it really has no equal as a market melon for professional melon growers and it is one of the very best sorts for the home garden. It is rare that a musk melon of such superlative quality is a good market or shipping sort, but the firm, solid flesh and the thin but strong rind of this sort make it the best shipper we know of, while it is just the size for hotel and table use.

Pkt. 5c; oz. 15c; 1 lb. 40c; lb. \$1.25.

WATERMELONS

Culture.—In Watermelon culture it is essential to get good, strong vines early in the season. These may be secured by forming large, well drained hills of earth, about eight feet apart, made very rich with an abundance of well-rotted manure, which should be thoroughly mixed with the soil, for if left in a mass it will lead to the plants burning out under the hot sun. In these hills plant the seed as soon as the ground is warm and dry and carefully protect the young plants from insects, and hasten their growth by the use of liquid manure.



PHINNEY'S EARLY.

Early Fordhook

WITHOUT A RIVAL—THE BEST EARLY MELON OF GOOD SIZE.

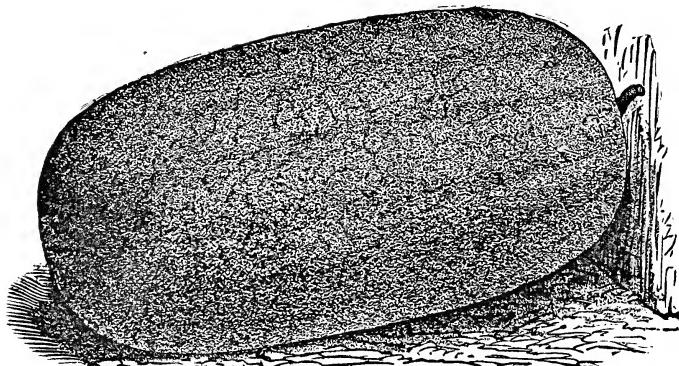
This is the earliest large-fruited melon in cultivation. The fruits are of good size, rather short and blocky in form, with large diameter. Skin dark green occasionally with stripes of light green. Flesh bright red, crisp, sweet and of splendid quality. Rind quite thin, but skin tough, making an excellent shipping variety.

Pkt. 5c; oz. 10c; 1 lb. 25c; lb. 75c.

Phinney's Early

A valuable variety for use in the North; hardy and a sure cropper. Vines vigorous and productive, fruiting quite early; fruit medium sized, oblong, smooth, marbled with two shades of green; rind thin; flesh pink, very sweet, tender and crisp.

Pkt. 5c; oz. 10c; 1 lb. 25c; lb. 70c.



Jordan's Gray Monarch or Long Light Icing

The exterior color of this fine melon is a light green, though its mottled markings make it appear gray. The flesh is deep red in color, and equal or superior in quality to the old Icing, from which it is derived. It differs in shape as well as in size from its parent, but lacks none of the virtues of that sweet-flavored variety. Specimens of Gray Monarch weighing 60 to 70 lbs. have been produced and it has become widely popular.

Pkt. 5c; oz. 10c; 1 lb. 25c; lb. 70c.

Halbert Honey

This melon originated in Texas. The rind is thin and will not hold for shipping any great distance. It has scarcely any pulp, and is very melting. It is long, dark green, slightly ridged, blunt at both blossom and stem ends and runs from 15 to 30 inches in length. There are earlier melons, but they cannot compete with this variety after it is ready for market. It uniformly demands the highest price. It is more productive than any other variety we have seen, in all, combining so many good points that we feel that it is a valuable addition to our list of melons.

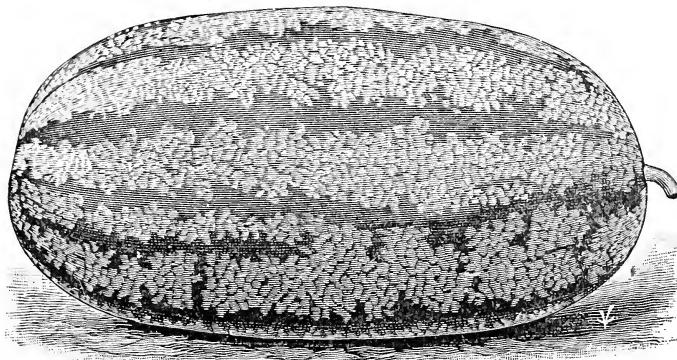
Pkt. 5c; oz. 15c; 1 lb. 40c; lb. \$1.25.

"PURITY SEEDS" FOR THE GARDEN, FIELD AND FARM

WATERMELONS

Continued

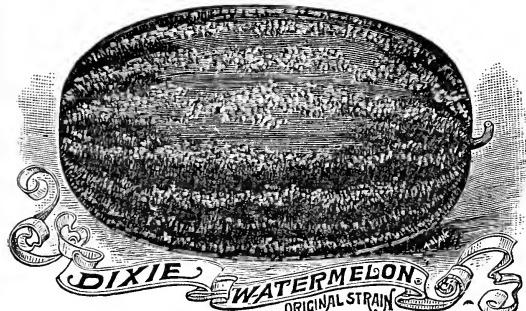
McIver's Wonderful Sugar



McIVER'S WONDERFUL SUGAR.

This is of Southern origin and has proven to be one of the very best melons in cultivation. It excels both in beauty and lusciousness, being exceedingly sweet and juicy. The melons attain great weight and large size; oblong in shape, the rind showing broad stripes of light and dark green. The flesh is a rosy pink, perfectly solid and stringless from rind to core; very crisp and of delicious flavor. For the home garden or general market it is unrivaled.

Pkt. 5c; oz. 10c; 1 lb. 25c; Ib. 75c.



A watermelon of highest quality and value. The size is large, specimens weighing 50 lbs. being not infrequent. The flesh is scarlet of extra fineness, firmness and good quality. A noteworthy and very valuable feature of this watermelon is the fact that the rind, though thin, is almost impenetrable, giving it remarkable keeping qualities. The variety is one of the most prolific known, often producing 6 to 8 large melons on a single vine. The vines root at the joints, and thus become more drought resisting and vigorous.

Pkt. 5c; oz. 10c; 1 lb. 20c; Ib. 70c.

Tom Watson

This comparatively new watermelon is becoming very popular. The fruits of this desirable sort are large and long, similar in shape, color and splendid quality to Kleckley Sweets, but averaging larger in size and with a tougher rind, making the variety especially adapted for shipping. The vines are vigorous and productive. The flesh is rich red, sweet and tender. The seed is white, more or less marked with brown.

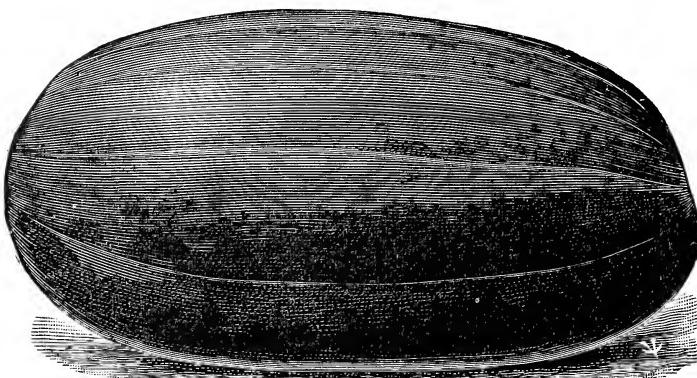
Pkts. 5c; oz. 10c; 1 lb. 30c; Ib. \$1.00.

"PURITY SEEDS" ONCE SOWN, ALWAYS GROWN

WATERMELONS

Continued

Kleckley Sweets



KLECKLEY SWEETS.

which does not crack open when ripe, as is the case in many large melons. The rich, bright scarlet flesh is crisp, sugary and melting to the highest degree, being entirely free from any stringiness. The rich coloring of the flesh, together with its luscious sweetness, combine to make it the finest table melon now in cultivation.

Pkt. 5c; oz. 10c; $\frac{1}{4}$ lb. 30c; lb. \$1.00.

Cuban Queen

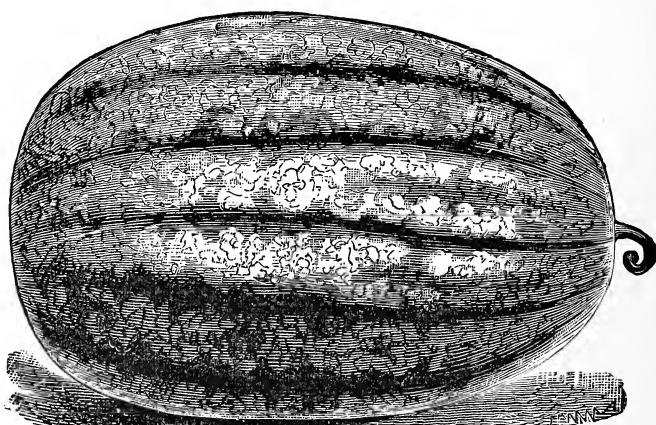
Fruit medium sized to large, globular or oval; skin striped light and dark green in sharp contrast; rind medium thick, but stands shipment well. Flesh bright red, solid, very crisp and sugary.

Pkt. 5c; oz. 10c; $\frac{1}{4}$ lb. 25c;
lb. 75c.

Gypsy, or Georgia Rattlesnake

One of the largest, oldest and most popular sorts. Fruit very long, of light green color, distinctly striped and blotched with a darker shade. Flesh bright scarlet, very sweet and tender. Vines large and vigorous. Seed nearly white.

Pkt. 5c; oz. 10c; $\frac{1}{4}$ lb. 25c;
lb. 75c.



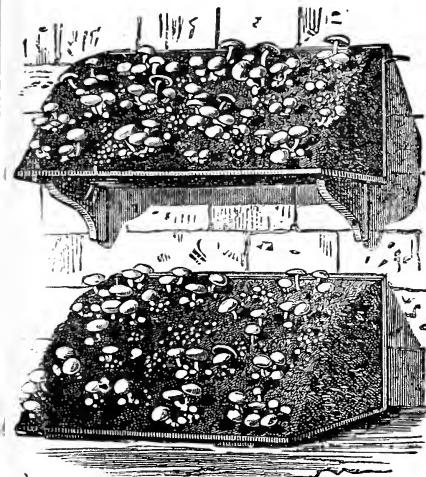
CITRON

Grows uniformly round and smooth, striped and marbled with light green. Flesh white and solid; seeds red. It should be borne in mind that this variety is not used for eating in the raw state, but for preserves, pickles, etc.

Pkt. 5c; oz. $\frac{1}{4}$ lb. 25c; lb. 75c.

NOTE.—When ordering melon or other seeds by the pound, to go by express or freight, purchaser paying transportation charges, 10c per pound may be deducted from prices quoted.

MUSHROOM



The Mushroom is an edible fungus of a white color, changing to brown when old. The gills are loose, of pinkish-red, changing to liver color. It produces no seed, but instead, a white fibrous substance in broken threads, called spawn, which is preserved in horse manure, being pressed in the form of bricks. Thus prepared, it will retain its vitality for years.

Mushroom beds may be made in a warm, dry cellar or in any building where the frost does not penetrate, and in the open air during the summer and fall months. Having procured the spawn, the next thing to be attended to is to make preparation for the beds. About a fortnight or three weeks before the beds are to be made, collect a quantity of fresh horse manure without the straw; place it in a heap under cover, and as it heats keep turning it over once or twice a week, until the fiery heat has been exhausted, which will require from ten to fourteen days' time. When the manure is in a condition to be made up, lay out your bed according to your requirements, say 3 feet wide, 10 feet long and from 2 to 3 feet deep; beat it well down with the back of the spade as the process of building goes on. When the bed has been made some time, say a week or thereabouts, and the heat sufficiently declined to a temperature of 65 or 75 degrees, the spawn may be put into it. Break the spawn in pieces 2 inches square, and put them 6 inches apart all over the bed soil, the stronger the better, but of a loamy quality, beating it down firmly with a spade. The soil used for this purpose should be in a pliable condition, and not too wet or over dry. Cover the bed with a foot of dried straw or hay; examine once a week to see if the manure is not heated while in this condition; if so, it will destroy the spawn; which will require spawning a second time. If everything goes on well, you may expect mushrooms in about five or six weeks. When the soil looks dry, give a gentle watering with tepid water, using a rose on the watering pot. If the beds are made out of doors, protect them from rain by covering with shutters or sashes. Good crops of mushrooms can be obtained by spawning the hot-beds in spring. They can also be raised in pots, boxes, or in fact in anything capable of keeping the materials together, and placed in a cellar, closet, greenhouse or grapevry. **Ten pounds will spawn about ten square feet. Spawn, 30c lb., postpaid.**

Mustard

Mustard is not only used as a condiment, but the green leaves are used as a salad, or cut and boiled like spinach. The culture should be the same as that of cress.

Giant Southern Curled

The leaves are light green, mild and tender when young.

Oz. 5c; 1 lb. 10c; lb. 60c.



OKRA

This is an annual from the West Indies cultivated for its young seed pods which are used in soups, or stewed and served like asparagus. It is highly esteemed in the South for making gumbo soup. The pods when young and tender, may be sliced in sections and strung on a thread and hung up in the shade to cure like dried apples; in this condition they can be used for soup at any time.

Culture.—Plant in hills about four feet apart, putting six to eight seeds in a hill, and after the plants are well started cut out all but two. The dwarf sorts can be planted much closer in hills, two to three feet apart or in drills two feet apart, thinning the plants to about one-foot apart in the row. Gather the pods when quite green, and about an inch and a half long.

WHITE VELVET

This variety is a great improvement on the old White or the Green. The plant is of medium height, bearing a large crop of white, smooth, tender pods which retain their tenderness until nearly full size.

Pkt. 5c; oz. 10c; 1 lb. 20c; lb. 60c.

ONIONS

The Onion not only contains considerable nutriment and has valuable medicinal properties, but is most useful in counteracting the bad effects of a sedentary life. The disagreeable odor it imparts to the breath may be avoided in a great measure by thoroughly cooking, or by eating a few leaves of parsley.

Good seed is of the **utmost importance**. Fully realizing this, we make a **specialty** of the best **Onion Seed**. A dollar saved on the purchase of the seed is likely to be lost many times over when the bulbs are harvested. The first cost of the seed is comparatively a small item as compared with the expense involved in the proper preparation, fertilizing and cultivation of the soil. This cost is fully as great, and frequently more cultivation is required to raise a crop of inferior bulbs from poor seed than to harvest a crop of fine, evenly ripened bulbs from a good strain of seed. Our Onion seed is grown only from choice selected bulbs, examined critically before being set out to produce seed. In **quality** it is **vastly superior** to much that is put on the market, and which is grown chiefly with the object of producing the largest quantity of seed per acre.

Although Onions are raised from sets and from division, by far the best and cheapest mode of production is from seed. The facility with which seed is sown and the superior bulbs which it produces, recommend its general use.

HOW TO RAISE ONIONS

THE SOIL.

A crop of onions can be grown on any soil which will produce a full crop of corn, but on a stiff clay, very light sand or gravel, or on some muck or swamp lands, neither a large nor a very profitable crop can be grown. We prefer a rich loam with a slight mixture of clay. This is much better if it has been cultivated with hoed crops, kept clean from weeds and well manured for two years previous, because if a sufficient quantity of manure to raise an ordinary soil to a proper degree of fertility is applied at once it is likely to make the onions soft. The same result will follow if we sow on **rank**, mucky ground, or on that which is too wet.

MANURING.

There is no crop in which a liberal use of manure is more essential than in this. If it is too rank, it is quite sure to make soft onions with many scallions. It should be of the best quality, well fermented and shoveled over at least twice during the previous summer to kill weed seeds. Of the commercial manures, any of the high grade, complete fertilizers are good for ordinary soils, but very rich soils are often benefited by fine ground bone, and mucky ones by a liberal dressing of wood ashes.

PREPARATION.

Remove all refuse of previous crops in time to complete the work before the ground freezes up, and spread the composted manure **evenly** at the rate of about fifty cartloads to the acre. This should first be cultivated in, and then the ground plowed a moderate depth, taking a narrow furrow in order to thoroughly mix the manure with the soil. Carefully avoid tramping on the ground during the winter. Cultivate or thoroughly drag the soil with a heavy harrow as **early** in the **spring** as it can be worked, and then in the opposite direction with a light one after which the entire surface should be made fine and smooth with hand rakes or some such implement as a smoothing harrow. It is impossible to cultivate the crop economically unless the rows are perfectly straight; to secure this, stretch a line along one side, fourteen feet from the edge, and make a distinct mark along it, then having made a wooden marker, something like a giant rake with five teeth about a foot long and standing fourteen inches apart, make four marks by carefully drawing it with the outside tooth in and the head at **right angles** to the perfectly straight mark made by the line. Continue to work around this line until on the third passage of the marker you reach the side of the field where you began; measure fifteen feet two inches from the last row, stretch the line again and mark around in the same way. This is better than to stretch a line along one side, as it is impossible to prevent the rows gradually becoming crooked, and by this plan

we straighten them after every third passage of the marker.

SOWING THE SEED.

This should be done as soon as the ground can be made ready, and can be done best by a hand seed drill. This should be carefully adjusted to sow the desired quantity of seed about half an inch deep. The quantity needed will vary with the soil, the seed used and the kind of onions desired. Thin seeding gives much larger onions than thick seeding. Four or five pounds per acre is the usual quantity needed to grow large onions. We use a drill with a roller attached, but if the drill has none the ground should be well rolled with a **hand roller** immediately after the seed is planted.

CULTIVATION.

Give the onions the first hoeing—just skimming the ground between the rows—as soon as they can be seen the length of the row. Hoe again in a few days, this time close up to the plants, after which weeding must be begun. The operation requires to be carefully and thoroughly done. The weeder must work on his knees astride of the row, stirring the earth around the plants, in order to destroy any weeds that have just started. At this weeding or the next, according to the size of the plants, the rows should be thinned, leaving from eight to twelve plants to the foot. In ten days or two weeks they will require another hoeing and weeding similar to the last, and two weeks later give them still another hoeing, and, if necessary, another weeding. If the work has been **thoroughly done** at the **proper time** the crop will not require further care until ready to gather.

GATHERING.

As soon as the tops die and fall, the bulbs should be gathered into windrows. If the weather is fine they will need no attention while curing, but if it is not they will need to be stirred by simply moving them slightly along the row. Cut off the tops when perfectly dry, about half an inch from the bulb, and then after a few days of bright weather, the onions will be fit to store for the winter.

STORING.

It will not do to store onions in large piles or masses, particularly in warm weather if they are the least moist, but if perfectly dry when gathered and they are spread not to exceed two feet in depth, they can be kept in fine condition until spring. Any arrangement will do that will keep them dry and at a uniform temperature of about 32 deg. Fahr., or they may be kept frozen, care being taken not to disturb them. They should be thawed gradually. Repeated freezing and thawing will spoil them.

ONIONS

Continued



EXTRA EARLY BARLETTA.

EXTRA EARLY WHITE PEARL OR BLOOMSDALE PEARL

A beautiful flat, white skinned variety, one of the earliest of all, and a good keeper. Unsurpassed for bunching. It can be sown in February or March, and will mature a crop very early in the season, or if sown in July, the crop will mature the same season. In the South the seed can be sown in autumn, and large onions produced in March. Known also as Early May.

Pkt. 5c; oz. 20c; 1 lb. 60c; 1b. \$2.00.

EXTRA EARLY BARLETTA

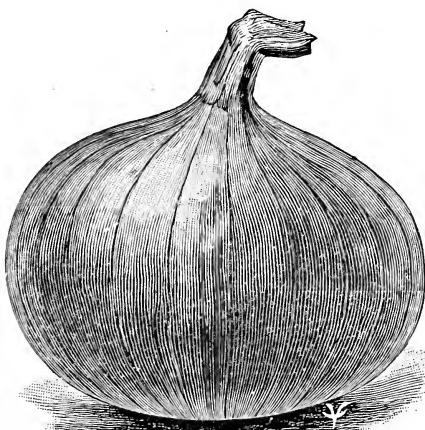
(The Earliest Onion in Cultivation.)

The bulbs are of a pure paper-white color, very mild and delicate in flavor, from one inch to one and a half inches in diameter and three-fourths of an inch in thickness. On account of its small size, seeds may be sown quite thickly and makes an excellent variety for pickling. Bulbs should be dug and dried in the shade as soon as the tops die down, or they will start into fresh growth and take on a greenish hue. The onion is a good keeper. It is the neatest little onion under cultivation.

Pkt. 5c; oz. 20c; 1 lb. 60c; 1b. \$2.00.



EXTRA EARLY WHITE PEARL,
OR BLOOMSDALE PEARL.



AUSTRALIAN BROWN.

Australian Brown

Is of medium size, wonderfully hard and solid, and most attractive for market, both as to form and appearance. They are extremely early in ripening, and never make any stiff-necks or scallions. Every seed seems to produce a good sized onion, and the bulb begins to form very quickly—when the plant is not over three inches high. Planted at the same time as Red Wethersfield, it proved to be nearly four weeks earlier and ripened off more uniformly. From its firmness and hardness, it will keep in good condition longer than any other onion known. The color of the skin is a clear amber brown. So widely contrasted from any other onion is this color that it will be noticed on the market, and when once bought purchasers will most likely call again for "those beautiful brown onions."

Pkt. 5c; oz. 20c; 1 lb. 50c; 1b. \$1.50.

REMEMBER, "PURITY SEEDS" ARE UNEXCELLED

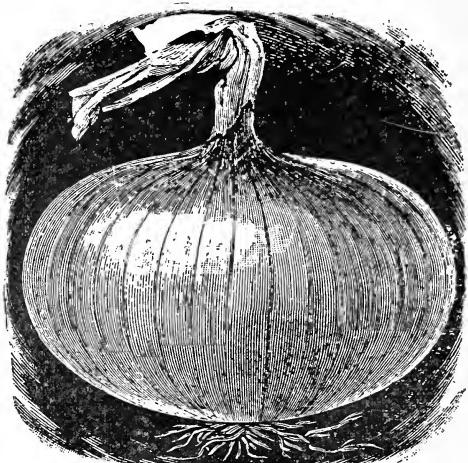
ONIONS

Continued

White Portugal or White Silver Skin

This is the standard white. See illustration. The bulbs grow to be a good size, ripening early and quite evenly. It is a good keeper. The flesh is very mild, the thin skin a clear silver white, of very handsome appearance, if the bulbs are gathered as soon as ripened, and carefully dried under shelter away from strong sunlight.

Pkt. 5c; oz. 25c; 1 lb. 75c; Ib. \$2.50.



WHITE PORTUGAL, OR WHITE SILVER SKIN.



Large Red Wethersfield

This is the standard Red Variety, and a favorite in the East, where immense crops are grown for shipment. Large; skin deep purplish red, form round, somewhat flattened; flesh purplish white; moderately fine grained, and stronger flavored than any of the other kinds. Very productive. The best keeper and one of the most popular for general cultivation. It is more inclined to form large necks if planted in unsuitable soil than the Danvers, but is the best variety on poor or dry soils.

Pkt. 5c; oz. 20c; 1 lb. 50c; Ib. \$1.50.

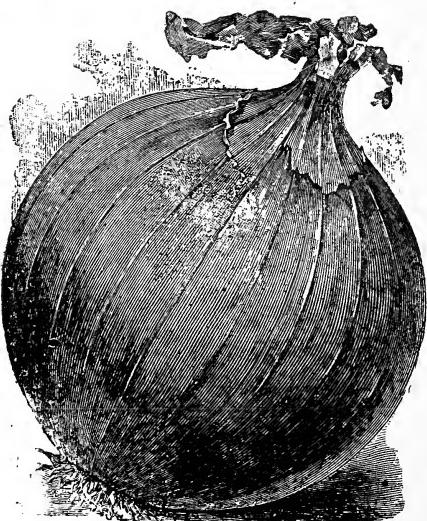
Golden Globe Onion

BALL-LIKE FORM. EARLIEST AND BEST LONG-KEEPING ONION.

Golden Globe is the earliest of all globe-shaped onions, and in extra long-keeping character equals the famous Australian Onions. The bulbs are of a beautiful elongated globe, with no tendency ever to become flattened; average weight seven to nine ounces. The skin is thin, uniformly of a beautiful light golden yellow. It has the smallest top of any onion we have ever grown—generally no longer or thicker than a lead pencil, while the uniformity with which the bulbs cure is astonishing. Extremely hard and solid, the pure white flesh is most mild and pleasant in flavor.

Golden Globe is undoubtedly the most valuable new onion introduced in a generation—both for market and the home garden. Its earliness, sure-cropping character, handsome appearance, and superb quality will soon make it a favorite everywhere.

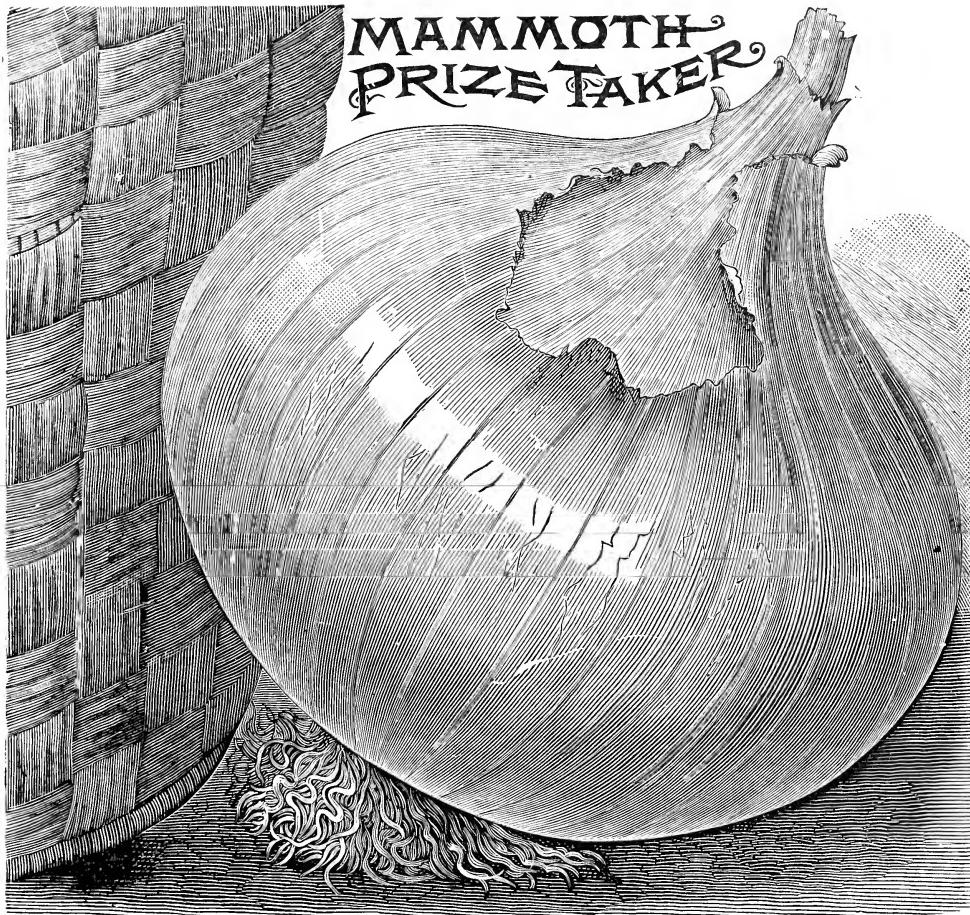
Pkt. 5c; oz. 20c; 1 lb. 60c; Ib. \$2.00.



Large White Globe (True Southport Strain)

A very handsome, silvery-white and perfectly ball-shaped onion of large size, commanding the highest prices in the eastern markets. Flesh firm, fine grained, of mild flavor, and an excellent keeper. Its even, regular size, perfectly globular form, combined with the clear, silvery whiteness of the thin skin, make it one of the handsomest onions grown. Owing to its large size it is later in ripening than the White Portugal or Silver Skin, the latter being of flattened form.

Pkt. 5c; oz. 25c; 1 lb. 75c; 1b. \$2.50.



Mammoth Prize Taker

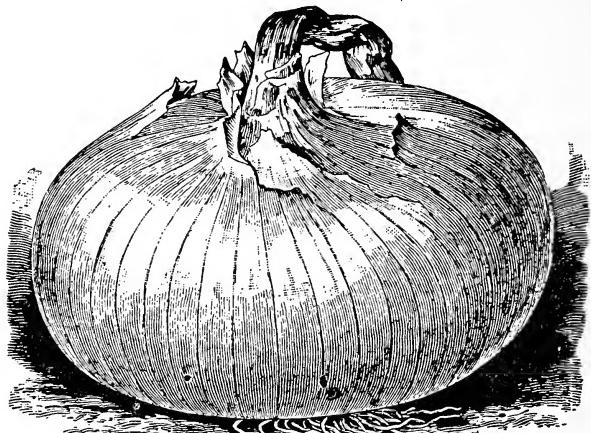
The grandest variety grown for the American climate. Its tenderness and mildness of flavor are unequaled even by the Bermuda varieties. In size it is not excelled by the enormous varieties from Spain. The Prizetaker Onion has now been several years on the market, and is recognized as one of the best standard varieties. Rarely has any vegetable attained prominence more rapidly. Nothing short of actual knowledge of this variety will convey a really adequate idea of its great value, whether considered as a variety for commercial or private culture. Its immense size will recommend it to all, particularly when it is known that its keeping qualities are unexcelled. The exterior color is pale yellow, and the interior clear, sparkling white. It is easily grown, medium early in maturing, mild in flavor. By sowing early in a sheltered spot and transplanting the young plants, it can be grown to an immense size.

Pkt. 5c; oz. 20c; 1 lb. 50c; 1b. \$1.75.

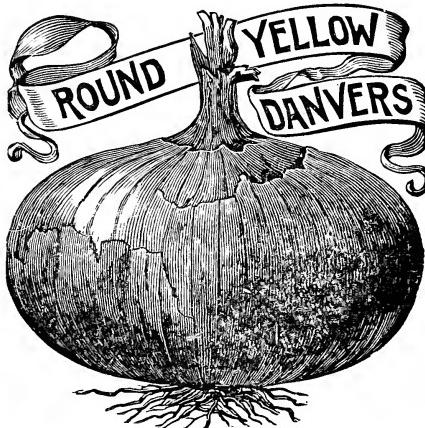
Mammoth Silver King

The Mammoth Silver King Onion grows to a remarkable size. The bulbs are of attractive form, flattened but thick through. The average diameter of the onions is from 5 to 7½ inches—thus making the circumference from 15 to 22 inches. Single bulbs often attain weights of from 2½ to 4 pounds each. The skin is beautiful silvery white; the flesh is snowy-white, and so sweet and tender that it can be eaten raw, like an apple. They mature early.

Pkt. 5c; oz. 20c; ¼ lb. 60c; 1 lb. \$2.00.



MAMMOTH SILVER KING.



Yellow Globe Danvers

This improved variety is pronounced by onion growers—who now grow it in preference to all other onions—the very best strain in cultivation. It is the earliest Yellow Globe variety, large in size, uniformly perfect in shape, and the largest cropper, producing from seed 1,000 bushels per acre with good cultivation. It is also the most reliable for bottoming, and one of the best keepers of all American onions.

Pkt. 5c; oz. 15c; ¼ lb. 50c; 1 lb. \$1.50.

Round Yellow Danvers

A fine productive variety of medium size; skin copper-yellow; flesh white, comparatively mild and well flavored.

Pkt. 5c; oz. 15c; ¼ lb. 40c; 1 lb. \$1.25.



YELLOW GLOBE DANVERS.

Onion Sets

To raise onion sets from seed, use good ground prepared as for large onions, and sow the seed very thick in broad drills, forty to sixty pounds per acre. If the seed is sown thin, the bulbs will not only be too large for sets, but will not be of the right shape, and if sown thick on poor land, they will be necky and bottle shaped. When onion seed is sown for sets, the seed may be planted somewhat later than for large bulbs, but fine crops are more likely to come from early sowing.

Yellow Bottom Sets

Plant them out in the spring, instead of sowing seed. **Lb. 20c postpaid.**

Prices by the 100 lbs. on onion sets are subject to the fluctuations of the market. **The price per single pound** will hold good throughout the season, or as long as our stock lasts.

PARSLEY

Champion Moss Curled

Very useful for flavoring soups and stews and for garnishing. The green leaves are used for flavoring, or they may be dried crisp, rubbed to a powder and kept in bottles until needed.

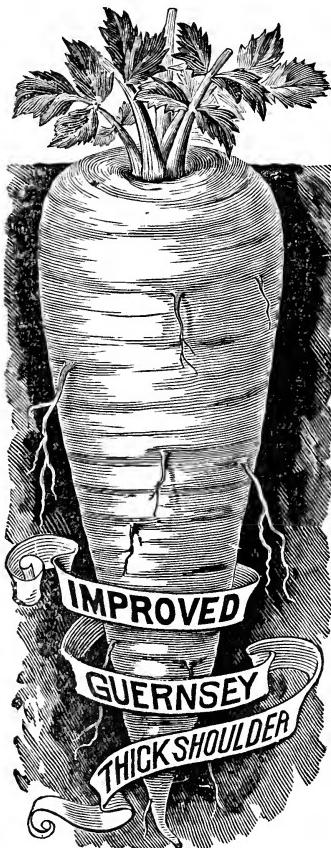
Culture.—It requires rich, mellow soil. The seed is even slower than parsnip in germinating, and should be sown as early as possible in the spring, in drills one foot apart, and when the plants are well up, thin to one foot in the row. When the plants are about three inches high, cut off all the leaves, the plant will start a new growth of leaves which will be brighter and better curled, and if these turn dull or brown they can be cut in the same way; every cutting will result in improvement. The moss curled variety makes beautiful border plants.

A compact growing, finely cut and much curled variety, of a bright green color. Owing to its fine color and density of foliage, it is much sought.

Pkt. 5c; oz. 10c; $\frac{1}{4}$ lb. 25c; lb. 75c.



PARSLEY.



PARSNIP

The value of the Parsnip as a culinary vegetable is well known, but it is not generally appreciated at its full value for stock feeding. On favorable soil it yields an enormous crop of roots, which are more nutritious than carrots or turnips. Roots are very rich in saccharine food, adding to the richness of the milk when freshly dug and fed to cows, as well as greatly increasing the flow of milk.

Culture.—They do best on a deep, rich, sandy soil, but will make good roots on any soil which is deep, mellow and moderately rich. Fresh manure is apt to make the roots coarse and ill-shaped. As the seed is sometimes slow to germinate it should be sown as early as possible, in drills two feet to two and one-half feet apart; cover one-half inch deep and press the soil firmly over the seed. Give frequent cultivation, and thin the plants to five or six to the foot.

IMPROVED GUERNSEY

(Improved Half Long. Thick Shoulder.)

A greatly improved and wonderfully fine strain of Guernsey Parsnip, of which our customers are unanimous in praising the fine quality. The roots do not grow so long as the Hollow Crown, but are of greater diameter and more easily gathered. It is a very heavy cropper. The roots are very smooth, the flesh fine grained, tender and sugary, and considered the best for general cultivation. Parsnips are improved by remaining exposed to the frost.

Pkt. 5c; oz. 15c; $\frac{1}{4}$ lb. 35c; lb. \$1.00.

When You Want Fine Vegetables Plant "PURITY SEEDS"

PEAS

Culture.—For early peas the soil should be light and warm, but for general crop a moderately heavy soil is better. Fresh manure and very rich or wet mucky soil should be avoided, as they cause a rank growth of vine at the cost of the quality of the peas, and such soil is often the cause of early sorts maturing unevenly. Sow **as early as possible** a few of the earliest varieties on warm, quick soil, prepared the fall before. The general crop can be delayed until later, but we have met with better success from sowing all the varieties comparatively early, depending for succession upon selecting sorts that follow each other in ripening. The peas will mature earlier if covered only one inch deep, and where earliness is most important they may be treated in that way; but larger pods and more of them will be produced if the seed be planted in trenches three to six inches deep, **covered with only one or two inches of soil.** When the plants are five or six inches high, fill the trench level with the surface; this will secure deep rooting, prevent mildew and prolong the bearing season. If the peas be covered to the full depth at first, or if water be allowed to stand in the trenches, they will not make a good stand of healthy plants.

The crop should be gathered as fast as it is fit for use. If even a few pods begin to ripen, not only will new pods cease to form, but those partly advanced will stop growing.

Earliest of all or Alaska

By careful selection and growing there has been developed a stock of this smooth, blue pea, which in evenness of growth of vine and early maturity of pods is **unequaled by any other extra early pea.** Vines two to two and one-half feet high, unbranched, bearing four to seven long pods, which are filled with medium sized, bright green peas of excellent flavor. Ripe peas small, bluish green. Matures all the crop at once and is an invaluable variety for market gardeners and canners.

Pkt. 10c; pt. 25c; qt. 40c, postpaid.
By Express, pk. \$2.00; bu. \$6.00.

Extra Early Gradus

Also called "PROSPERITY" PEA.

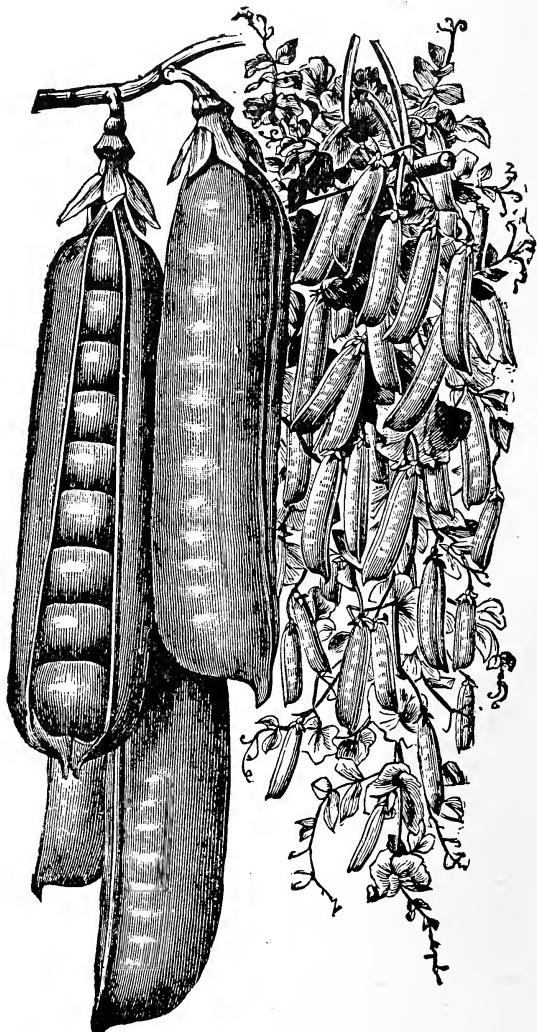
This popular new large-podded wrinkled pea of finest quality matures pods only two or three days later than the small-podded, round-seeded extra earlies. The vine has heavy stems with large, light green leaves, and grows three feet high. It produces uniformly large pods, measuring from four to four and a half inches in length, nearly round, and well filled with very large, handsome peas of the finest flavor. The peas remain tender and sweet for some time after they are large enough to use.

Pkt. 10c; pt. 30c; qt. 50c, postpaid.
By Express, pk. \$2.75; bu. \$10.00.

American Wonder

A variety nearly as early as the Alaska, with stout, branching vines, about nine inches high, and covered with well filled pods, containing seven or eight large, exceedingly sweet, tender and well flavored peas. Dry peas, medium sized, much wrinkled; pale green.

Pkt. 10c; pt. 25c; qt. 45c, postpaid.
By Express, pk. \$2.00; bu. \$7.50.



AMERICAN WONDER.

Something to Tie to "PURITY SEEDS"

PEAS

Continued

Premium or Little Gem

A very desirable, early dwarf, green wrinkled variety growing about fifteen inches high. When green it is very large, sweet and of delicious flavor.

Pkt. 10c; pt. 25c; qt. 45c, postpaid.
By Express, pk. \$2.00; bu. \$7.50.

Nott's Excelsior

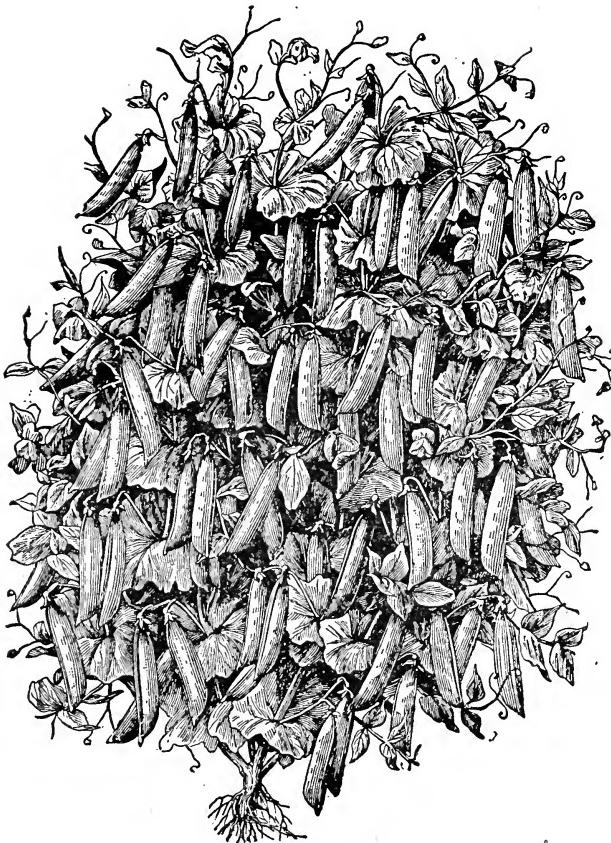
The Best Early Dwarf Pea.

It combines to a wonderful degree the good qualities of the American Wonder and Premium Gem Peas without their deficiencies. The vines are larger and more vigorous than the American Wonder and earlier and more prolific than Premium Gem. The Peas in sweetness and quality are unsurpassed. A most desirable sort for the market gardener and unsurpassed for the home garden.

Pkt. 10c; pt. 25c; qt. 45c, postpaid.
By Express, pk. \$2.00; bu. \$7.50.



PREMIUM GEM.



BLISS' EVERBEARING.

Bliss' Everbearing

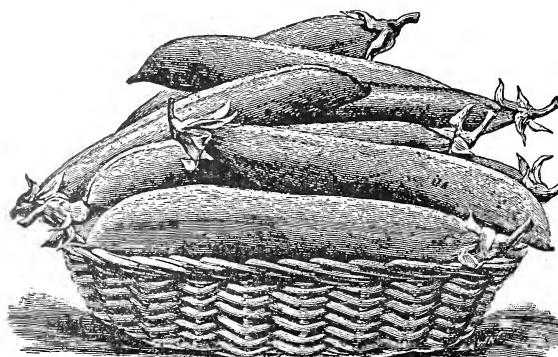
A variety maturing soon after the Gems, and continuing a long time in bearing. Vine stout, about eighteen inches high, bearing at the top six to ten broad pods. If these are removed as they mature, and the season and soil are favorable, the plant will throw out from the axil of each leaf branches bearing pods which will mature in succession, thus prolonging the season. The peas are large and wrinkled, cook very quickly, are tender, of superior flavor and preferred by many to any other sort.

Pkt. 10c; pt. 25c; qt. 45c, postpaid.
By Express, pk. \$2.00; bu. \$7.50.

WHEN PEAS BY THE PINT OR QUART ARE ORDERED BY EXPRESS OR FREIGHT, EIGHT CENTS PER PINT, OR FIFTEEN CENTS PER QUART MAY BE DEDUCTED FROM PRICES QUOTED. PECKS AND BUSHELS SENT BY EXPRESS OR FREIGHT AT PURCHASER'S EXPENSE.

PEAS

Continued



IMPROVED STRATAGEM.

Improved Stratagem

One of the Best of the Large Podded Sorts.

The Pods are of Immense Size and Uniformly Filled with Very Large, Dark Green Peas of the Finest Quality.

All the good qualities of the Old Stratagem are highly developed in our Improved, and it is vastly superior to the stocks now generally sold as Stratagem. Vine medium height, but very stocky, with very broad light green leaves and bearing an abundance of large handsome pods. The best pea now on the market for those who want large, showy pods and peas, without any sacrifice in quality. One of the best varieties for market gardeners.

Pkt. 10c; pt. 25; qt. 45c, postpaid. By Express, pk. \$2.00; bu. \$7.50.

PEPPER

The culture for pepper is the same as for egg plant; the plants need quite as much heat to perfect them, though they mature sooner and may be sown a little later. Guano, hen dung, or any other bird manure, hoed into the surface soil when the plants are about six inches high, will wonderfully increase the product and also improve the quality of the fruit.

Red Chili

A late variety used in the manufacture of pepper sauce. The bright rich red pods are about two inches long, one-third to one-half inch in diameter at the base, tapering to a sharp point and exceedingly pungent when ripe. Requires a long, warm season. The plants should be started quite early in hot-beds.

Pkt. 5c; oz. 25c; $\frac{1}{4}$ lb. 75c; lb. \$2.50.

Long Red Cayenne

A rather late sort, having a long, slim, pointed pod, and when ripe, of a bright red color. Extremely strong and pungent.

Pkt. 5c; oz. 25c; $\frac{1}{4}$ lb. 75c; lb. \$2.25.

Ruby King

An improved American sort, reaching the largest size yet retaining the symmetrical shape of the smaller sorts. It is very bright colored, beautiful, sweet and mild-flavored. One of the best for stuffed pickles.

Pkt. 5c; oz. 25c; $\frac{1}{4}$ lb. 75c; lb. \$2.50.

Large Bell, or Bull Nose

Our stock of this well-known variety, which is sometimes called Sweet Mountain, is a great improvement on the best stock obtainable a few years ago. Plant vigorous, compact, very productive, ripening its crop uniformly, excellent quality for use in salads and pickles; color bright red when ripe.

Pkt. 5c; oz. 25c; $\frac{1}{4}$ lb. 75c; lb. \$2.25.

Chinese Giant

The earliest maturing of the extremely large, red sweet peppers and surpassed by none in evenness of size and shape. The plant is vigorous and upright, growing two and one-half to three feet high. The fruits are of the largest size, ripen earlier than any of the other very large sorts and average heavier, as the flesh is exceptionally thick. Color deep green when fruit is young, deep crimson when matured; flavor very mild.

Pkt. 5c; oz. 50c; $\frac{1}{4}$ lb. \$1.50; lb. \$5.00.



"CHINESE GIANT."

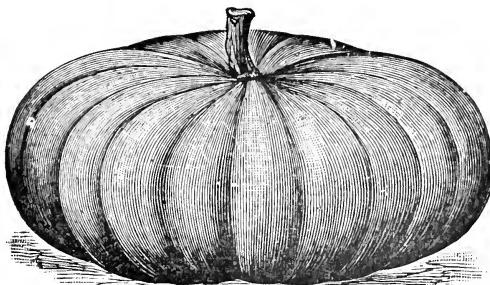
PUMPKIN

Pumpkins are not so particular in regard to soil as melons or cucumbers, but in other respects are cultivated the same, though on a larger scale. They are generally raised between hills of corn, but may be planted with success in fields by themselves.

Sweet Cheese, or Kentucky Field

A most popular variety in the South. Fruit flattened, the diameter being two to three times more than the length; skin mottled light green and yellow, changing to rich cream color as it matures; flesh tender and of excellent quality.

Pkt. 5c; oz. 10c; 1 lb. 20c; lb. 70c.



SWEET CHEESE, OR KENTUCKY FIELD.

Small Sugar

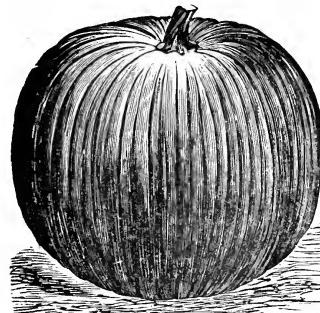
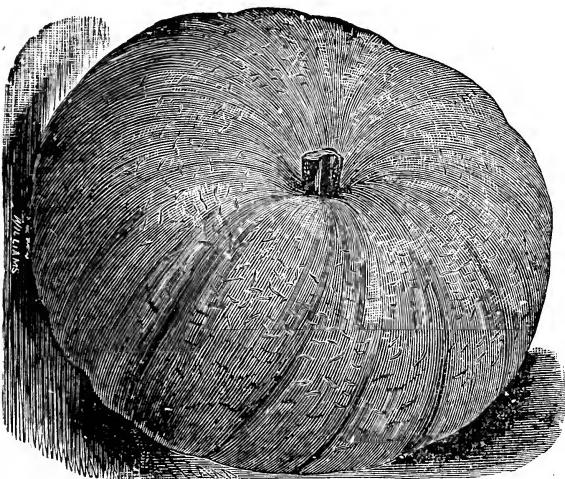
A handsome, prolific variety; fruits of small size, averaging about ten inches in diameter, of excellent keeping qualities, flattened or slightly ribbed. Skin deep orange yellow; flesh sweet.

Pkt. 5c; oz. 10c; 1 lb. 25c; lb. 80c.

Large Yellow, or Connecticut Field, (Big Tom)

Grows to a large size, and is adapted for cooking purposes and for feeding stock. The shape is irregular, some being round and others elongated or flattened. It is of deep, rich yellow color, fine grained and excellent in flavor.

Pkt. 5c; oz. 10c; 1 lb. 20c; lb. 60c.



Genuine Mammoth, or True Potiron

Called also King of the Mammoths, Large Yellow Mammoth, Mammoth, \$50.00 Pumpkin, and Jumbo Pumpkin.

The pride taken in growing the largest pumpkin, and the great demand for the seed, explains the multitude of names which this, the Genuine Mammoth Pumpkin, has received. It grows to an enormous size, three feet or more in diameter, and one hundred to two hundred pounds or more in weight. It has salmon colored skin; flesh bright yellow, fine grained and of good quality.

Pkt. 5c; oz. 20c; 1 lb. 60c; lb. \$2.00.

Remember, "**PURITY SEEDS**" are Unexcelled

RADISH

Cultivated chiefly for its roots, though the young seed leaves may be used as a salad and the green seed pods for pickles. For the home garden, sow on rich, sandy soil as early in the spring as it is fit to work. For forcing sow in hot-beds, having very rich, sandy soil, made perfectly level. Scatter evenly over the surface from sixty to one hundred and fifty seeds to the square foot and cover with one-half inch of soil sifted on, and attend carefully to the watering and airing. If the bed is a good one, the whole crop can be marketed in twenty-one to forty days after planting. In open ground culture sow in drills twelve inches apart and thin to such a distance in the row as to prevent crowding. A good dressing of nitrate of soda will stimulate the growth and insure tender, brittle roots. Successional sowings from one week to ten days apart will keep up a supply. After the hot weather of summer begins, it is better to sow the summer and winter varieties, as they do not become tough and stringy nor pithy so quickly as the early sorts. Radishes are subject to root maggots, which make them useless for culinary purposes. We know of no certain remedy for the pests. We have found that the best preventative measures are, to avoid the use of rank manure and not to sow on ground where radishes, turnips or cabbages were grown the previous year. We have been very careful to secure the very best seed possible, and are certain that there is none sold under other names which is better than the varieties we offer. One ounce of seed is sufficient for 100 feet of drill; 10 to 12 pounds for an acre.



Extra Early Scarlet Turnip

A small, round, red, turnip-shaped radish with a small top and very quick growth. A very early variety, deserving general cultivation on account of its rich color and crisp, tender flesh. Desirable for forcing or early outdoor planting.

EXTRA EARLY SCARLET TURNIP. Pkt. 5c; oz. 10c; $\frac{1}{4}$ lb. 20c; lb. 60c.

Non Plus Ultra or Deep Scarlet Turnip, Forcing

This has as small a top and is as early as any variety in cultivation, making it one of the best for forcing. Roots fit for use may be had in three weeks or less from time of sowing. Roots small, globular, deep, rich red in color; flesh white, crisp and tender when young. May be planted very closely, owing to its small tops.

Pkt. 5c; oz. 10c; $\frac{1}{4}$ lb. 25c; lb. 75c.

Early White Turnip

An early white radish, a little more flattened than Early Scarlet Turnip, and but little if any later maturing. While generally used for early outdoor planting, its small tops and quick growth make it suitable for forcing. Roots about one inch in diameter when mature. Flesh pure white, crisp and tender.

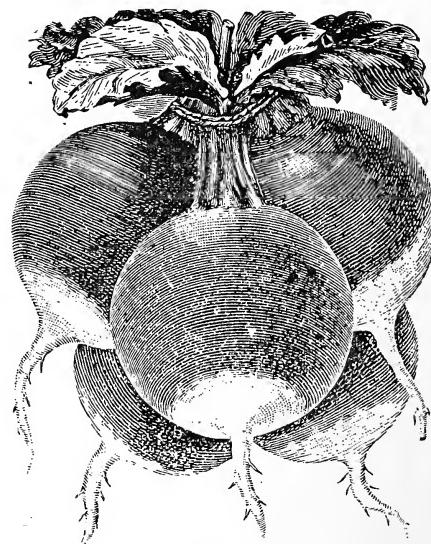
Pkt. 5c; oz. 10c; $\frac{1}{4}$ lb. 20c; lb. 50c.

Early Scarlet Turnip White Tipped

One of the handsomest of the turnip radishes and a great favorite in many large markets for early planting outdoors. Roots slightly flattened on the under side, color very deep scarlet with a white tip; flesh white and of the best quality. Cannot fail to give satisfaction.

Pkt. 5c; oz. 10c; $\frac{1}{4}$ lb. 20c; lb. 60c.

The above varieties of radishes are especially developed and selected for forcing. They should be grown quickly and used when small and tender, as they become pithy and flavorless when overgrown. Most of them are at their best when less than an inch in diameter.



EARLY SCARLET TURNIP.
(White Tipped.)

RADISH

Continued



FRENCH BREAKFAST.

French Breakfast

A medium sized radish, olive shaped, small top, of quick growth, very crisp and tender, of a beautiful scarlet color, except near the tip, which is pure white. A splendid variety for the table on account of its excellent quality and its beautiful color.

Pkt. 5c; oz. 10c; 1 lb. 20c; lb. 60c.

Early Long Scarlet, Short Top

This bright scarlet, small topped sort, is about six inches long, grows half out of the ground, is uniformly straight, smooth, brittle and crisp and is an excellent sort for private gardens or market use.

Pkt. 5c; oz. 10c; 1 lb. 20c; lb. 50c.

Icicle

A very attractive, pure white radish, the earliest of the long, white summer sorts and of most excellent quality. The roots are somewhat shorter, with smaller tops than Long White Vienna and mature a little earlier. One of the most desirable varieties for outdoor summer planting. It is also adapted for forcing.

Pkt. 5c; oz. 10c; 1 lb. 20c; lb. 60c.

Improved Chartier, or Shepherd

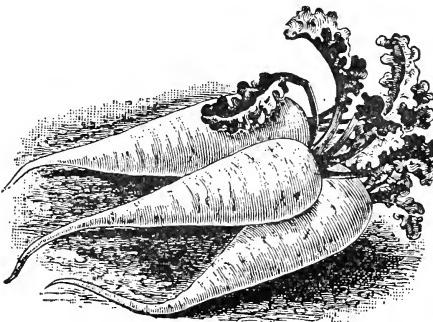
Although this American variety is too strong growing to be used for forcing, it is one of the very best for sowing outdoors. The roots come to usable size very early, remaining hard and crisp until they reach a diameter of one and one-half or two inches, and so furnish good roots for much longer time than any of the preceding varieties. Roots, scarlet, rose above, shading into white at the tip. They are long, cylindrical for the upper two-thirds, and then gradually taper to the tip. Flesh white, crisp and mild flavored.

Pkt. 5c; oz. 10c; 1 lb. 20c; lb. 50c.

White Strasburg Radish

This grows to the largest size, and is usable when quite small, thus covering a long season. The mature roots are four to five inches long and about two inches thick, very white; the flesh is exceedingly crisp and tender. One of the best of the large summer sorts.

Pkt. 5c; oz. 10c; 1 lb. 20c; lb. 50c.



WHITE STRASBURG.

RADISH

Continued

Winter Radishes

Sow about the same time as winter turnips, on light, rich soil, in drills eighteen inches apart; give frequent cultivation, and thin two to six inches apart, according to size of the variety. For winter use pull before severe frost, and store in damp sand in cellar.

Chinese Rose, or Scarlet China

Roots cylindrical, or largest at the bottom, tapering abruptly to a small tip. Skin very smooth and of a bright rose color; flesh firm, crisp, tender and quite pungent.
Pkt. 5c; oz. 10c; $\frac{1}{4}$ lb. 25c; lb. 70c.

New White Chinese or Celestial

Is the finest of all extra large white radishes; the roots grow to immense size, averaging in rich soil, from twelve to fifteen inches in length and fully five inches in diameter; nearly the whole of the large roots grow above the surface, but are shaded from the sun by the abundant foliage, so that the skin remains a pure paper-white; and, notwithstanding the immense size, the flesh is always crisp, mild and juicy.

Pkt. 5c; oz. 10c; $\frac{1}{4}$ lb. 25c; lb. 70c.



Round Black Spanish

Roots round, sometimes top-shaped, three or four inches in diameter; skin black; flesh white, very compact and pungent, but well flavored. Keeps well through the winter.
Pkt. 5c; oz. 10c; $\frac{1}{4}$ lb. 25c; lb. 70c.

RHUBARB, OR PIE PLANT

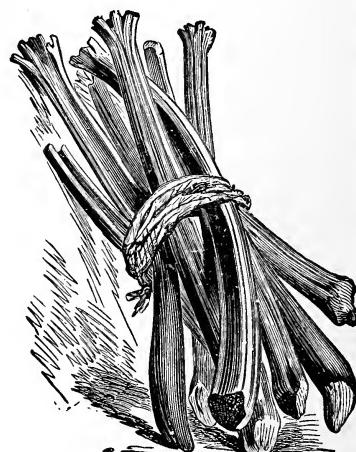
Rhubarb, familiarly known as Pie Plant or Wine Plant, is cultivated in gardens for its leaf stalks, which are used for pies and tarts. Immense quantities are now annually sold in the large markets. No private garden should be without it.

Culture.—Rhubarb succeeds best in deep, somewhat retentive soil. The richer its condition, and the deeper it is stirred the better. Sow in drills an inch deep, and thin out the plants to six inches apart. In the fall transplant the young plants into very highly manured and deeply stirred soil, setting them four to six feet apart each way, and give a dressing of coarse manure every spring. The stalks should not be plucked until the second year, and the plant never allowed to exhaust itself by running to seed.

Myatt's Victoria

The most popular variety.

Pkt. 5c; oz. 15c; $\frac{1}{4}$ lb. 40c; lb. \$1.25.



NOTE.—When you order seeds to go by express, you to pay the transportation charges, 10 cents may be deducted from the pound prices.

Salsify, or Vegetable Oyster

The long, white, tapering root of Salsify resembles a small parsnip, and when cooked is a good substitute for oysters, having a very similar flavor.

Culture.—It succeeds best in a light, well enriched soil, which should be stirred to a good depth. Coarse and fresh manure should be avoided, as it will surely cause the roots to grow uneven and ill-shaped. Sow early and quite deep, giving the general culture recommended for parsnips. The roots are perfectly hardy, and may remain out all winter, but should be dug early in spring, as they deteriorate rapidly after growth commences. Store a quantity for winter use in a pit, or in a cellar in damp earth or sand.

Mammoth Sandwich Island

This grows uniformly to an extra large size, averaging fully double the size and weight of the old variety. The roots, notwithstanding their enormous size, are of a very superior quality and delicate flavor. It is such a decided improvement that we are quite sure that all market gardeners who once try it will use it exclusively.

Pkt. 5c; oz. 15c; 1 lb. 40c; lb. \$1.25.

SORREL

Those who think of Sorrel as the starved looking weed of barren lands have little idea of the possible value of the plant. The improved varieties when well grown and cooked like Spinage, make a healthful and very palatable dish. Sow in drills early in spring and thin the seedlings to six or eight inches apart in the row. One may commence cutting in about two months, and the plants will continue in full bearing from three to four years.



SORREL.

SPINAGE

Spinage is very hardy, extremely wholesome and palatable, and makes a delicious dish of greens, retaining its bright green color after cooking.

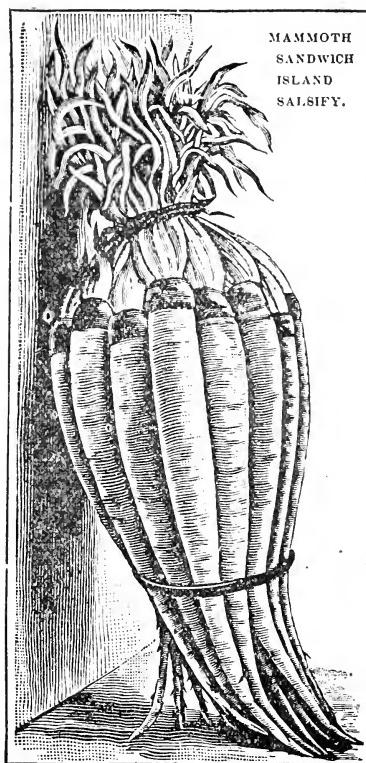
Culture.—Should be planted in very rich ground, the richer the better. Sow in drills one foot apart, and begin thinning out the plants when the leaves are an inch wide. All should be cut before the hot weather, or they will be tough and stringy. For early spring use, sow early in autumn and protect the plants with a light covering of leaves or straw.

Long Standing

An improved round seeded strain of excellent merit, having all the good qualities of other sorts and continuing in condition for use much longer. The leaves are smooth and very dark, rich green. Very popular with market gardeners. Pkt. 5c; oz. 10c; 1 lb. 15c; lb. 35c.

Bloomsdale Savoy Leaved

The earliest variety and one of the best to plant in autumn for early spring use. Plant of upright growth, with narrow pointed leaves, which are curled like those of cabbage. It grows quickly to a suitable size for use but soon runs to seed. Pkt. 5c; oz. 10c; 1 lb. 15c; lb. 35c.

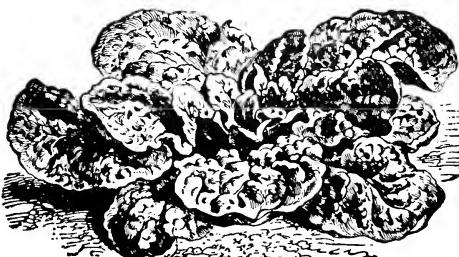
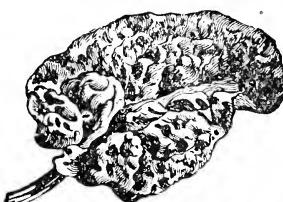


MAMMOTH
SANDWICH
ISLAND
SALSIFY.

Large Leaved French

The best garden variety, having large, pale green leaves of fine quality.

Pkt. 5c; oz. 10c; 1 lb. 30c; lb. \$1.00.



SQUASH

The Squash is one of the most nutritious and valuable of all our garden vegetables. Few farmers appreciate the value of winter squash as food for stock. We think an acre of squash, costing no more to cultivate, and much less to secure, will give as much available food for feeding stock as an acre of corn, and we strongly urge our readers to try a "patch" for this purpose.

Culture.—The plants are very tender and sensitive to cold and planting must be delayed until settled warm weather. The general principles of culture are the same as those given for cucumbers and melons, but Squash is less particular as to soil. The summer varieties should be planted four to six feet apart each way, and the winter sorts eight to ten. Three plants are sufficient for a hill.

In gathering winter sorts, care should be taken not to bruise or break the stem from the squash, as the slightest injury will increase the liability to decay.

Mammoth Summer Crookneck

One of the best of the Summer Squashes. It is of dwarf, bushy habit and very productive. The skin is yellow. The flesh has a greenish yellow color, and is dry and of most agreeable flavor. This is in fact most highly esteemed of all the summer varieties. We particularly recommend our selected strain to the attention of market gardeners.

Pkt. 5c; oz. 10c; 1 lb. 25c; 1b. 80c.

Mammoth White Bush

The fruit is a beautiful clear, waxy-white instead of the yellowish-white so often seen in the old Early White Bush Scallop, and is superior to that variety in every respect. The best of the scalloped squashes.

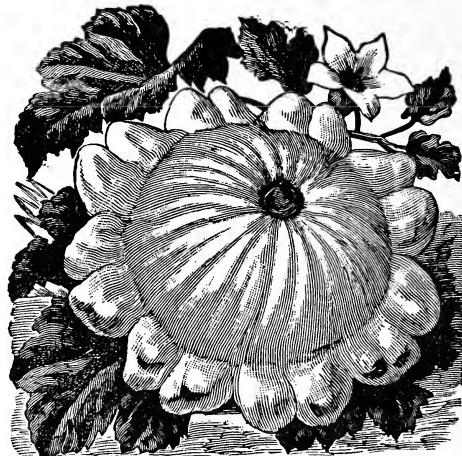
Pkt. 5c; oz. 10c; 1 lb. 25c; 1b. 80c.

Long White Marrow

Or Improved Vegetable Marrow.

One of the finest varieties for table purposes. Skin is very thin, color light yellow, salmon flesh. A good winter keeper.

Pkt. 5c; oz. 10c; 1 lb. 25c; 1b. 80c.



MAMMOTH WHITE BUSH.

Boston Marrow

A fall and winter variety, very popular in the Boston market. Of oval form; skin thin, when ripe, bright orange mottled with light cream color; flesh rich salmon yellow, fine grained, and for sweetness and excellence unsurpassed, but not as dry as the Hubbard.

Pkt. 5c; oz. 10c; 1 lb. 25c; 1b. 75c.

Fordhook

Bright yellow outside and straw yellow within. The flesh is dry and sweet—the best in quality of all winter squashes. It keeps in perfect condition **until late in June**. It is a strong and rapid grower—earlier in ripening than any other winter squash and is **immensely productive**. A most valuable characteristic is that while such a remarkable keeper, the **skin is so thin and delicate** that the squashes are prepared for the table by cutting in half lengthwise and **cooking**, **skin and all**, at any time throughout the winter. Another feature is that the **green squashes can be used at any stage of their growth**.

Pkt. 5c; oz. 15c; 1 lb. 40c; 1b. \$1.25.

Golden Hubbard

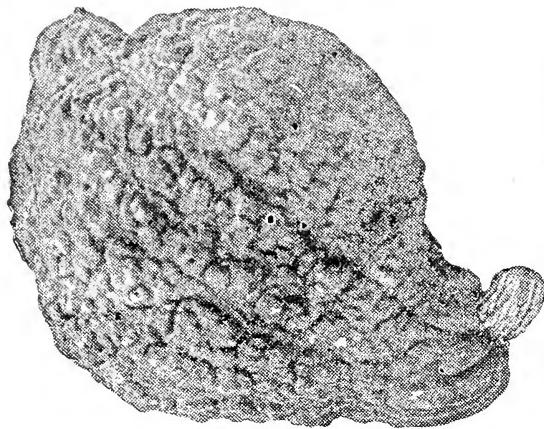
Vine vigorous and very productive. Fruits of medium size, weighing from six to eight pounds and in shape like the Hubbard, although in condition for use earlier. They are wonderfully long keepers and can be held over in good condition for spring use. Shell warted, hard, strong and of a beautiful orange-red color, except for a bit of olive-green on blossom end. Flesh deep orange, dry, fine grained and richly flavored.

Pkt. 5c; oz. 10c; 1 lb. 40c; 1b. \$1.25.

From "Purity Seed" Fine Vegetables Grow.

Squash

Continued



HUBBARD.

Hubbard

This is a superior variety and one of the best of winter squashes; flesh bright orange yellow, fine grained, very dry, sweet and rich flavored; keeps perfectly good throughout the winter; boils or bakes exceedingly dry and is esteemed by many to be as good baked as the sweet potato. Our stock is most carefully selected with regard to quality of the flesh and color and wartiness of the shell, but the latter peculiarities are largely determined by the soils in which the squashes are raised.

Pkt. 5c; oz. 10c; 1 lb. 40c; lb. \$1.25.

Noxall or Utah

This is the "Jumbo" of the Squash family. It is an extra large-fruited sort, quite distinct in form and appearance. The fruits frequently attain more than one hundred pounds in weight. Flesh firm and solid, of beautiful orange yellow and excellent quality. Decidedly the best field variety grown.

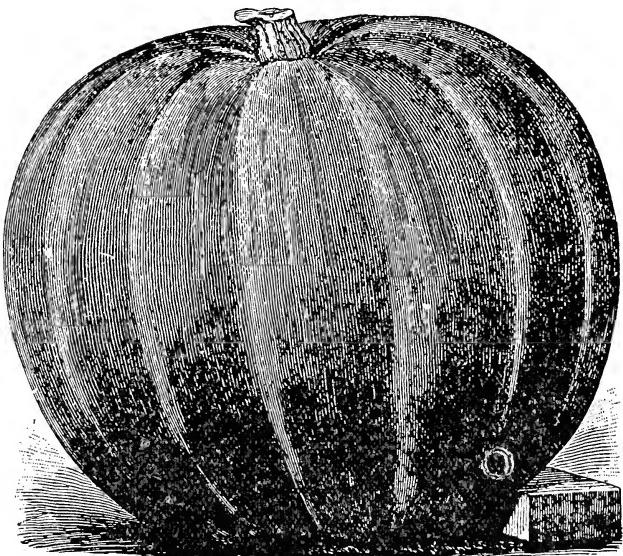
Pkt. 5c; oz. 10c; 1 lb. 20c; lb. 50c.

Mammoth

Chili

The outer skin of this great squash is rich orange yellow. The flesh is yellow and very thick, and the quality is good and nutritious. It is of highest value as a stock food, far exceeding ordinary pumpkins in this respect, and answering as well as root crops. It is a prolific variety and keeps well throughout the winter. Has been known to reach the great weight of 292 pounds.

Pkt. 5c; oz. 15c; 1 lb. 50c; lb. \$1.50.



TOBACCO

Tobacco is an Annual Plant, and although it grows to a greater size in the South, an equally good quality can be produced in the hot, dry summers of the North.

Culture.—The seed should be sown as early as possible after the danger of frost is over. A good plan is to burn a quantity of brush and rubbish, in the spring, on the ground intended for the seed bed, then dig and thoroughly pulverize the earth and mix with the ashes, after which the seed may be sown and covered very lightly. When the plants are about six inches high, transplant into rows four or five feet apart each way, and cultivate thoroughly with plow and hoe.

Connecticut Seed Leaf

Best adapted to the climate of the Middle and Northwestern States, as it is more hardy and endures the cold better than the tender varieties grown South. In many of the Northern States and in Canada this variety is the staple crop.

Pkt. 6c; oz. 20c; 1 lb. 60c; lb. \$2.00.

TOMATO

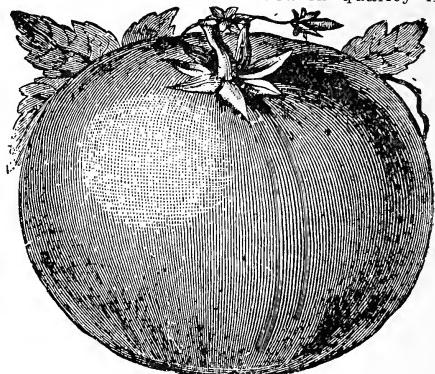
It is false economy to try to save on the first cost of Tomato Seed—a little seed goes so far. And yet the country is almost "flooded" with cheap Tomato Seed, saved without any regard to selection, and sometimes even the refuse of canning establishments. All our Tomato Seeds are grown from stocks raised strictly for seed purposes and from seed stocks carefully selected. We challenge comparison of our stock with any offered.

Culture.—Tomatoes do best on light, warm, not over rich soil, and success depends upon securing a rapid, vigorous and unchecked growth during the early part of the season. Sow in hot-beds from six to eight weeks before they can be set out of doors, which is when danger of frost is past; when the plants have four leaves transplant into shallow boxes or cold frames, setting them four or five inches apart; give plenty of air and endeavor to secure a vigorous but steady and healthful growth, so that at the time of setting in the open ground they will be strong and stocky. Even a slight check while the plants are small will materially diminish their productiveness. Set out of doors as soon as danger from frost is over, but before doing so harden off the plants by gradually exposing them to the night air and by the withdrawal of water until the wood becomes hard and the leaves thick and of a dark green color. Transplant carefully and cultivate well as long as the vines will permit. The fruit is improved in quality if the vines are tied to a trellis or to stakes.

Chalk's Early Jewel

One of the very best early tomatoes yet introduced. Vine vigorous and very productive. Fruits deep scarlet red, nearly round or somewhat flattened, smooth, of large size and most excellent quality. They ripen very early and the pickings continue through a long season. Unsurpassed for the home garden.

Pkt. 5c; oz. 25c; 1 lb. \$1.80; 1b. \$2.75.



CHALK'S EARLY JEWEL.

Foliage heavy and a rich dark green. The growth is similar to that of Dwarf Champion, and while later, the fruits average a third larger. The fruits are produced in clusters of three to five, and as the growth is close-jointed, each plant produces a large number. They are bright scarlet in color very smooth and regular, exceptionally firm and solid; the walls of flesh are thick, and the fruits have a solid, meaty center, with no hard core. The quality is of the finest, the flesh being sweet, even in cool weather late in the season.

Pkt. 5c; oz. 35c; 1 lb. \$1.00; 1b. \$3.00.

"Dwarf Stone"

Foliage heavy and a rich dark green. The growth is similar to that of Dwarf Champion, and while later, the fruits average a third larger. The fruits are produced in clusters of three to five, and as the growth is close-jointed, each plant produces a large number. They are bright scarlet in color very smooth and regular, exceptionally firm and solid; the walls of flesh are thick, and the fruits have a solid, meaty center, with no hard core. The quality is of the finest, the flesh being sweet, even in cool weather late in the season.

Pkt. 5c; oz. 35c; 1 lb. \$1.00; 1b. \$3.00.

Sparks' Earliana

THE EARLIEST AND BEST LARGE, SMOOTH, RED TOMATO.

Market gardeners in this vicinity are enthusiastic in its praise, and grow it for early market in preference to any other variety. It is a full week ahead of all others. The plant is of strong and vigorous growth, setting its fruits freely and in great abundance. The fruit is not only remarkable for its earliness, but for its large size, perfect form, bright red color and delicious flavor. It ripens clear to the stem and does not crack. Its solidity and fine quality are quite equal to the best medium and late sorts.

Pkt. 5c; oz. 25c; 1 lb. 75c; 1b. \$2.50.

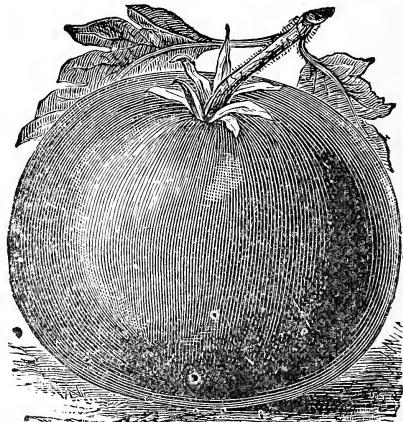
ACME

One of the smoothest and most uniform in size, and earliest of the purple fruited sorts. Vine large, hardy and productive, ripening its fruit almost as early as any, and continuing to bear abundantly until cut off by frost. Fruit in clusters of four or five, invariably round, smooth and of good size, free from cracks, and stands shipment remarkably well; flesh solid and of excellent flavor.

For market gardeners who want an early, purple fruited tomato, either for home market or to ship; for private gardens or for canners, it stands without a peer among its class.

This variety is used for planting under glass.

Pkt. 5c; oz. 20c; 1 lb. 60c; 1b. \$2.00.



Ponderosa

A purplish pink tomato of the largest size. Vine vigorous and very productive. Fruits very solid, with exceptionally few seeds, fairly smooth and considered of very good quality, especially by those who prefer a tomato quite free from acid. Ripens about midseason. Very desirable for slicing.

Pkt. 5c; oz. 40c; 1 lb. \$1.25; 1b. \$4.00.

NOTE.—When you order seeds to go by express, you to pay transportation charges, 10 cents may be deducted from the pound price.



TOMATO

Continued

BEAUTY

The Smoothest and Best of All Main-Crop Purple Colored Tomatoes.

It is one of the largest tomatoes grown, and is most regular in shape and size. Color purplish-red, very solid, firm flesh, a good keeper, and not subject to rot or crack on the vines. It is an excellent shipper, ripens evenly to the stem, is a strong, healthy grower, not subject to rust or blight, is an enormous cropper, and produces until the vines are killed by frost, holding its size exceedingly well until the last picking. The quality is of the very best, and for cooking and slicing purposes it cannot be excelled. It is in every way a most desirable variety for market gardeners, as well as the home garden.

Pkt. 5c; oz. 20c; 1 lb. 60c; 1b. \$2.00.

Dwarf Champion

This is a purple fruited variety, which forms very stout, strong plants about two feet high. The branches are short, making a bushy plant that stands quite erect without stakes. This sort is often sold as "Tree Tomato." Fruit smooth medium sized, color purplish-pink, fairly solid, but has no hard core, and is of good flavor. The dwarf habit of the vines makes it **very desirable for forcing**, as it can be planted closer to the glass, and more closely on the bench, than the tall growing kinds.

Pkt. 5c; oz. 25c; 1 lb. 75c; 1b. \$2.50.

STONE

This is the heaviest and most solid fruited of the large tomatoes of good quality. Vines vigorous and productive.

Our stock is distinctly superior to most of that offered under this name, being more uniform, better colored and larger.

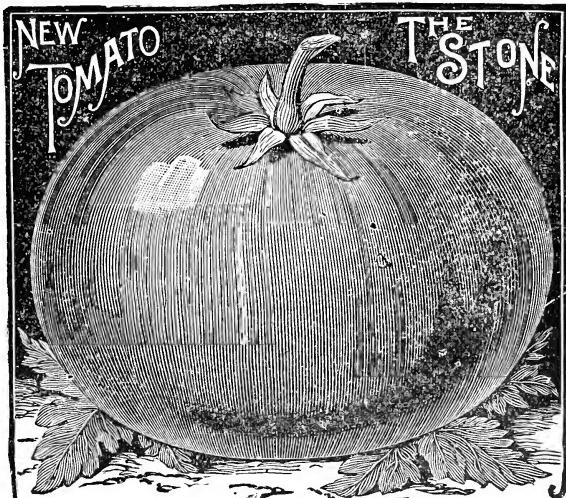
Fruit round, apple shaped, very large, very deep red in color, and astonishingly heavy. Canners use this variety almost exclusively.

Pkt. 5c; oz. 20c; 1 lb. 60c; 1b. \$2.00.

The Matchless

This great Tomato is well named. The color is a rich, cardinal red. The skin is so tough that it is a splendid shipper and keeper and is less liable to crack in wet weather than any other large tomato. Unsurpassed for market or for table use. The plant is a strong grower, and is very productive, bearing with undiminished vigor until frost. The fruit is free from core, and the seed spaces are comparatively small.

Pkt. 5c; oz. 30c; 1 lb. \$1.00; 1b. \$3.00.



Red Pear Shaped

Used for preserves and to make "tomato figs." Fruit bright red, distinctly pear shaped, and with a peculiar flavor. Our stock is the true pear shaped, and not the larger red plum tomato which is so often sold under this name.

Pkt. 5c; oz. 25c; 1 lb. 75c; 1b. \$2.50.

Yellow Pear

Fruit pear shaped, clear, deep yellow color; flesh yellow and fine flavored. Much esteemed for preserves.

Pkt. 5c; oz. 25c; 1 lb. 75c; 1b. \$2.50.

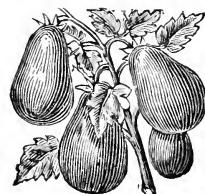
Red Cherry

Fruit small, about five-eighths of an inch in diameter; perfectly round and smooth. Fine for pickles and preserves.

Pkt. 5c; oz. 25c; 1 lb. 75c; 1b. \$2.50.



RED CHERRY.



RED PEAR.

TURNIP

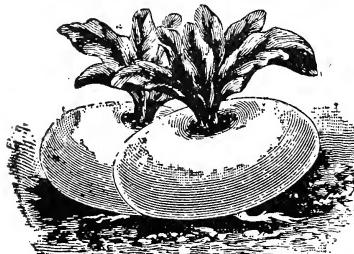
For feeding stock in fall and winter, there is nothing superior to Turnips and Ruta Bagas, as they will yield a larger amount of food than almost anything else on the same space of ground. We cannot too earnestly recommend farmers to increase their sowings largely, for we are sure no crop will prove more remunerative.

This wholesome and agreeable vegetable is most easily affected in its form and flavor by soil, climate and mode of culture. There are a great many varieties, but our list comprises the best for the garden and farm.

Sow in drills about sixteen inches apart, and half an inch deep, or sow broadcast, but in either case be sure to have the ground rich and freshly dug. Be careful to weed and thin out, so the young plants will not be checked and injured. Any overcrowding will result in rough and poorly flavored fruit. It is important to get the spring and summer crops started very early so that the turnips may have time to grow to sufficient size before hot weather causes them early to become tough and strong.

In the Middle and Western States sow for fall and main crop from the middle of July to the last of August, as directed for the spring sowing. In the field turnips are generally sown broadcast, though much larger crops are obtained by drill culture.

To preserve turnips in good order for winter, store in a cool cellar and cover with sand or turf to keep them fresh. Another method is to put them in a pit dug in dry soil, where there will be no danger of water standing, and to cover with straw overlaid with earth sufficiently deep to keep out frost. Thus protected, turnips will keep well till spring.



Extra Early White Milan

This variety is remarkably early. The top is very small, upright and compact, so that the rows can be planted close together. The clear white roots are very smooth, symmetrical and beautiful. The flesh is white, tender and sweet.

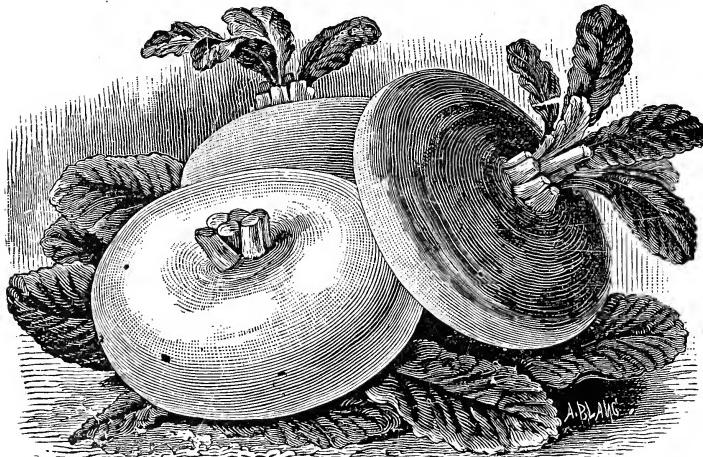
Pkt. 5c; oz. 10c; $\frac{1}{4}$ lb. 40c; lb. \$1.25.

EXTRA EARLY WHITE MILAN.

Early White Flat Dutch

A most excellent garden variety, and largely used in the Southern States. Root medium size, flat; color white; very clear, sweet and tender. It is desirable for table use, but is spongy and inferior when overgrown.

Pkt. 5c; oz. 10c; $\frac{1}{4}$ lb. 25c; lb. 75c.



Early Red or Early Purple-Top Strap-Leaved

This is an early variety and a great favorite for table use; form flat, like a broad disc, and of medium size; color purple or dark red above ground, white below; flesh white, fine grained and tender; leaves few, upright in growth.

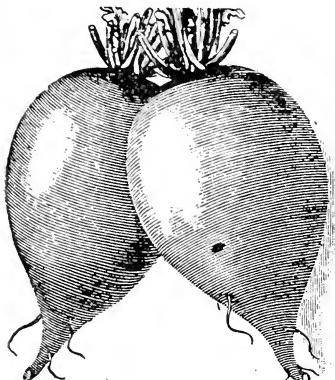
Pkt. 5c; oz. 10c; $\frac{1}{4}$ lb. 25c;
lb. 75c.

EARLY WHITE FLAT DUTCH AND EARLY RED OR PURPLE TOP.

You obtain Best Results, when you sow "PURITY SEEDS"

TURNIPS

Continued



WHITE EGG.

WHITE EGG

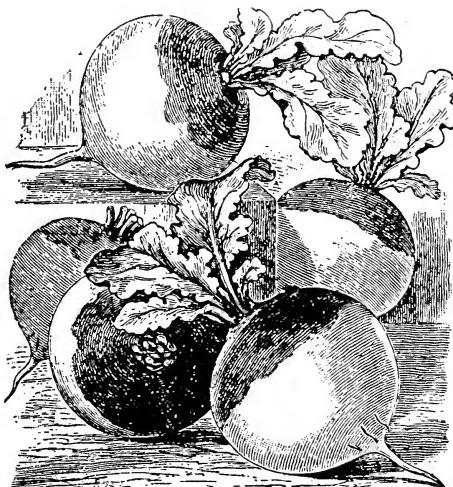
A quick-growing, egg-shaped, perfectly smooth, pure white variety, with small top and rough leaves. It grows half out of the ground. The flesh is very sweet, firm and mild, never having the rank, strong taste of some white varieties.

Pkt. 5c; oz. 10c; 1 lb. 25c; lb. 75c.

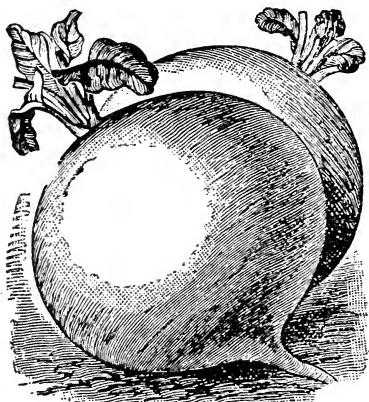
RED OR PURPLE TOP WHITE GLOBE

A variety that originated from the Purple-Top Flat Turnip. It is globular and nearly as large as the Pomeranian White Globe, of beautiful appearance, of most excellent quality, and equally desirable for table or stock. It keeps well and is a fine market sort.

Pkt. 5c; oz. 10c; 1 lb. 25c; lb. 75c.



RED, OR PURPLE-TOP WHITE GLOBE.



POMERANEAN WHITE GLOBE.

Pomeranian White Globe

This is one of the most productive kinds, and in good, rich soil roots will frequently grow to twelve pounds in weight. It is perfect globe shape; skin white and smooth; leaves large and dark green.

Pkt. 5c; oz. 10c; 1 lb. 25c; lb. 75c.

Orange Jelly, or Robertson's Golden Ball

This is the most distinct yellow Turnip ever offered. It is of very fine texture, and the best, sweetest and most delicious of the yellow-fleshed varieties. It is of medium size, with small tap-root, a rapid grower, matures early and keeps well. A superior table variety.

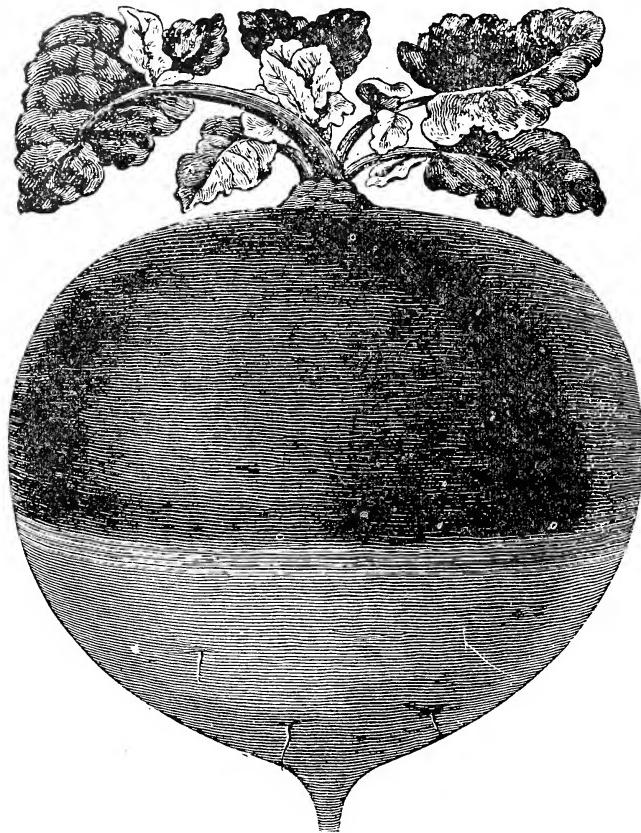
Pkt. 5c; oz. 10c; 1 lb. 25c; lb. 75c.

Vegetables Grown from "PURITY SEEDS" are Prize Winners

TURNIPS

Continued

Ruta Bagas, or Swedes



AMERICAN PURPLE TOP, OR IMPROVED LONG ISLAND.

American Purple Top, or Improved Long Island

This is a strain of Purple Top Yellow Ruta Baga of American origin, selected to a smaller top and much shorter neck than is usually found, while the roots grow to a large size and are of the finest quality. We consider this one of the most desirable kinds on our list.

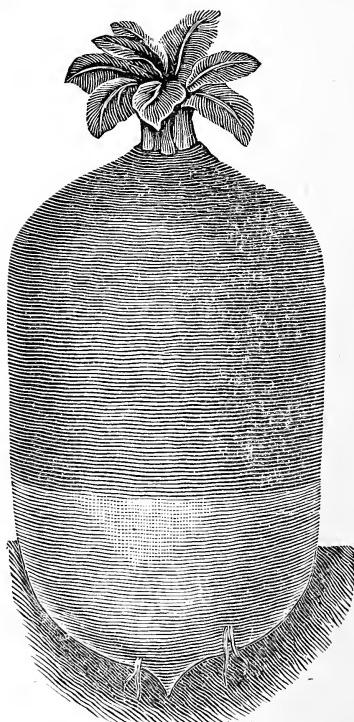
Pkt. 5c; oz. 10c; 1 lb. 25c; 1b. 75c.

Monarch, or Tankard

This is a yellow-fleshed sort, having very large tankard shaped roots, with relatively small necks and tops. Color purplish-crimson above ground, yellow below; flesh very solid; fine grained and of the best flavor. This very popular variety is also sold as Hurst's Monarch, and Carter's Elephant.

Pkt. 5c; oz. 10c; 1 lb. 25c; 1b. 75c.

Culture of Ruta Baga.—Sow the seed about a month earlier than the preceding varieties of turnips. Ruta Bagas should be sown on ground enriched with well rotted manure, in drills two and one-half feet apart, and should be thinned to six to eight inches apart in the row. Keep the weeds thoroughly in check with the hoe or cultivator, and when the roots have grown full size, and before hard freezing weather, pull them, cut off the tops and store in a root cellar or pit. Ruta Bagas are sometimes sown broadcast, and left to take their chances with the weeds and bugs, but this method is only successful on new clearings in which there is no weed seed.



Aromatic, Medicinal, and Pot Herbs

GENERAL CULTURAL DIRECTIONS

Most of the varieties thrive best on rich, sandy soil, which should be carefully prepared and well cultivated, as the young plants are for the most part delicate and easily choked out by weeds. Sow as early as the ground can be made ready, in drills sixteen to eighteen inches apart, taking pains that the soil is fine and pressed firmly over the seed, or they may be planted as a second crop—the seeds sown in beds in April, and the plants set out in June. Most of them should be cut when in bloom, wilted in the sun and thoroughly dried in the shade.

Anise

(Pimpinella anisum.) A well-known annual herb whose seeds, which have an agreeable aromatic odor and taste, are used for dyspepsia and colic, and as a corrective of griping and unpleasant medicines. Sow early and thin to three inches apart in a row.

Pkt. 5c; oz. 10c.

Caraway

(Carum carvi.) Cultivated for its seed, which is used in confectionery, cakes, etc. The leaves are sometimes used in soups. If sown early in August the plants will give a fair crop of seed the next season, but when sown in the spring will not seed until the next year. Plant in drills two or three feet apart, and thin to six inches apart in the row.

Pkt. 5c; oz. 10c.

Dill

(Anethum graveolens.) An annual cultivated for its seed which has an aromatic odor, and a warm, pungent taste. It is good for flatulence and colic in infants. It is sometimes added to pickled cucumbers to heighten the flavor. Sow early in spring, and keep clear of weeds.

Pkt. 5c; oz. 10c.

Marjoram, Sweet

(Origanum majorana.) A hardy perennial plant, but not hardy enough to endure the winter of the North. The young, tender tops are used green for flavoring, or they may be dried for winter use. Sow in drills as early as possible, and thin out the plants to ten inches apart.

Pkts. 5c; oz. 20c.

Rue

(Ruta graveolens.) A hardy perennial with a peculiar smell. The leaves are bitter, and so acrid as to blister the skin. It is a stimulant and anti-spasmodic, but must be used with great caution, as its use sometimes results in serious injury. It must not be suffered to run to seed and does best on poor soil.

Pkt. 5c; oz. 15c.

Sage

(Salvia officinalis.) A hardy perennial, possessing some medicinal properties, but cultivated principally for use as a condiment, it being used more extensively for flavoring and dressing. Sow early in spring (four or five pounds to acre in drills) on very rich ground, cultivate often and thin the plants to sixteen inches apart. Cut the leaves and tender shoots just as the plant is coming into flower, and dry quickly in the shade. The plants will survive the winter and may be divided. If this is done they will give a second crop superior in quality.

Pkt. 5c; oz. 20c.

Savory, Summer

(Satureja hortensis.) A hardy annual, the dried stems, leaves and flowers of which are extensively used for flavoring, particularly in dressing soups. Cultivate the same as that of Sweet Marjoram.

Pkt. 5c; oz. 20c.

Thyme

(Thymus vulgaris.) This herb is perennial, and is both a medicinal and culinary plant. The young leaves and tops are used for soups, dressing and sauce; a tea is made from the leaves which is a great remedy in nervous headache. Sow as early as the ground will permit.

Pkt. 5c; oz. 20c.

A Descriptive List of

Choice Flower Seeds

The Pleasure resulting from a large and varied collection of flowers will amply repay for time and labor spent

To have a beautiful flower garden, one must take pleasure in working and caring for the plants when young. It has ceased to be a necessity to keep such large stocks of bedding and other tender plants under glass through the winter, thereby saving the expense of glass, fuel, labor, etc. We are enabled to send out the highest results of carefully selected seed, in cheap paper packets, from which the amateur will derive his plants by means so simple as to be within the reach of everyone.

Nothing is more beautiful than the old-time and natural flowers. Do not cast aside the single Petunias, Hollyhocks, Fox-gloves, Forget-Me-Nots, and the old-time Phlox and Paeonies, for nothing is handsomer than the old-fashioned flowers. Were we to assist nature more rather than try to create monstrosities, our garden would look by far more beautiful and natural.

The soil best adapted to most flowering plants is a light, moderately rich loam, containing a sufficient amount of sand to make it friable. A great many varieties will live in almost any soil, but to give them a fair chance to develop, some care should be taken to make it suited to their needs. Many flowers are better if produced on plants of vigorous growth; hence a portion of the garden should be prepared by deep digging, thorough pulverization and liberal enriching with large quantities of **well rotted manure**. Since other varieties produce the largest and finest colored flowers when grown on rather light, poor soil, a portion of the garden should not be enriched.

Cultural directions are given on nearly all packets, and we urge purchasers to study them carefully. While some seeds need special treatment, the following general rules will apply to all: Make the surface as fine and smooth as possible; do not plant any seed when the ground is wet; cover each lot of seeds to a uniform depth, which should never be more than three or four times the diameter of the seed; press the soil firmly over the seeds; plant in rows so that the young plants can be easily seen and pull up all weeds as soon as they appear.

The term "Annual" is given to those plants which grow, flower, seed and die within the same year.

"Biennials" are those plants that do not generally flower until the second season, and after blooming die.

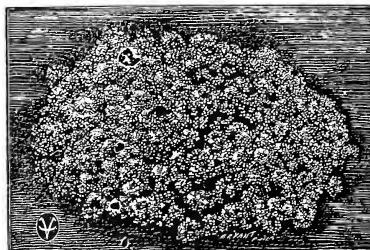
"Perennials" are those that do not generally flower until the second year, but continue to bloom for years and may be propagated by a division of the roots.

Acroclinium

(Everlasting.) Very pretty, half-hardy annual, producing white and rose colored daisy-like flowers in August and September. These are the "Immortelles," so desirable for wreaths and winter bouquets. Height one foot. **Mixed. Pkt. 5c.**

Ageratum

The different varieties of Ageratum grow from six inches to two feet or more in height and are very profuse and constant bloomers. They bear clusters of round tassel-shaped blossoms, which are excellent for cut flowers and in borders. Hardy annual. **Mixed. Pkt. 5c.**



ALYSSUM.

Alyssum, Little Gem

(Benthami Compactum.) A beautiful white variety of Sweet Alyssum, especially adapted to edgings, borders and rock work. The plants grow about six inches high, and produce hundreds of flowers, which form a compact mass of bloom about fifteen to eighteen inches in diameter. Hardy annual. **Pkt. 5c.**

ANTIRRHINUM.—See **Snapdragon**.

IF YOU WANT GOOD FLOWERS PLANT "PURITY SEEDS"

ASTERS

It is unnecessary to dwell on the great beauty of these popular favorites, as they are appreciated by everyone. Our seed is the very finest it is possible to procure. We recommend our friends to plant a number of varieties, as no other annuals give so magnificent a display during the late summer and fall months.

Truffaut's Perfection Paeony Flowered

This magnificent race must be seen in order to get any adequate idea of the possibilities in aster culture. The plants form large compact bushes about eighteen inches high, which, in the full flowering season, are literally covered with large extremely double, perfectly shaped flowers. While each class of asters has a beauty and individuality of its own, and it is better to sow seed of many of them, yet if we were confined to a narrow range of choice and could sow but one class, we would choose Truffaut's. We offer seed of the most distinct and desirable colors. **Mixed, pkt. 10c.**

Comet Asters

This is the most distinct and improved type of flowers in Asters as well as of the earliest period of bloom. Under good cultivation plants grow twelve to fifteen inches in height, branching freely, and each stem terminates in a fine large flower two to two and a half inches in diameter. The outer petals are broad, flat, and reflexed or curving outward, while the center of the flower is composed of many short tubular petals, slightly pointed. The whole flower has a distinctly feathery effect, greatly resembling that of the fine Japanese Chrysanthemums.

GIANT COMET—"BRANCHING WHITE."—This is similar in growth to **Victory**, described below, but has flowers of even larger size and of the purest white; of fine, regular form, well reflexed, full centered, and highly desirable for cut flowers.

Pkt. 10c.

NEW GIANT BRANCHING COMET, "FREEDOM." The same fine habit and enormous flower as in **Branching White Comet** and in **Victory**, but distinct in having the large bright carmine petals finely striped with silver white.

Pkt. 10c.

NEW GIANT BRANCHING COMET, "VICTORY."—The plants are of very strong growth, two feet in height, freely branching producing large bright crimson flowers of the true Comet type on long, stiff stems. The double flowers are of beautiful soft shade of clear carmine or rose-pink.

Pkt. 10c.



COMET ASTERS.

NEW GIANT COMET ASTERS, Mixed. This new strain equals in feathery form and fine coloring the original Comet Asters, but the plants are of stronger growth, producing flowers of larger size and on longer stems. With good cultivation, flowers of this type frequently measure four inches across, and in their fine form, large size and long stem, approach in beauty the Chrysanthemums grown in the greenhouse during the late fall months. This special mixture contains seed of **New Giant-branching White**, **Freedom**, and **Victory**. **Pkt. 10c.**

SEMPLE'S NEW BRANCHING ASTERS. All Colors Mixed of this favorite long-stemmed strain for cutting. **Pkt. 10c.**

BACHELOR'S BUTTON—See *Centaurea*.

BALSAM

Known as Lady Slipper and Touch-Me-Not. Balsams have been so much improved by cultivation that, with good seed and proper care, a single flower is the exception now rather than the rule. The colors range from white to dark purple, and are either self-colored or spotted and striped. Balsams are tender and should be started in boxes indoors or in the open ground when danger of frost is past. The plants prefer a rich, moist or even wet sandy loam, and must not suffer for moisture. Hardy annual; one to two feet high.

DOUBLE CAMELLIA, extra fine mixed, as double as a Camellia, which it resembles; white, blotted with various colors. Pkt. 5c.

BELLIS—See *Daisy*.

CALLIOPSIS

(*Coreopsis*.) A very showy border plant, producing flowers of very brilliant yellow, orange, crimson, red and brown, beautifully contrasted. Hardy annual; two feet high. Fine mixed. Pkt. 5c.

Canary Bird Flower

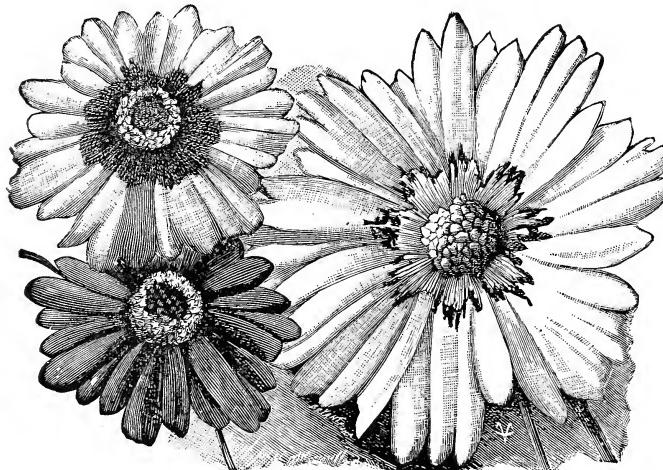
(*Tropaeolum canariense*.) A beautiful climber with small curiously shaped, canary colored blossoms. Will bloom freely from July until killed by frost. Tender annual; height about twenty feet. Pkt. 5c.

CALENDULA.—See *Marigold*.

CALIFORNIA POPPY—See *Eschscholtzia*.



BALSAM.



CALLIOPSIS.

FINEST LARGE FLOWERING VARIETIES.—Nothing can exceed the beauty and variety of color of these magnificent bedding or greenhouse plants. Start the seed in heat in February; the plants will bloom by August in the greatest profusion. About three feet high.

Fine mixed pkt. 10c.

CANDYTUFT

ROCKET (Empress.) White, extra large trusses. A great improvement in the size and quality of the flowering trusses over the common white variety.

Pkt. 5c; fine mixed, pkt. 5c.

CANNA

Stately ornamental plants, very desirable for bedding outdoors, where they produce clusters of large flowers of the most intense and brilliant colors. Tender perennial; two to six feet high. Store roots in cellar in winter.

Canterbury Bell

(Campanula Medium.) Handsome, hardy biennial, of stately growth, rich color and profuse bloom. Succeeds best in light, rich soil, and should be transplanted two feet apart. Has large bell-shaped flowers which are strikingly effective.

Double mixed, pkt. 10c.

Carnation

(Dianthus Caryophyllus.) Carnations are an indispensable feature in every collection of house or conservatory plants. Their wide range of color, perfectly shaped and highly perfumed flowers and long stems class them among the very best for cut flowers, etc. The plants may be set in the open ground during the summer, when they will flower as profusely as when grown in pots in the house. Half hardy perennials; one to one and one-half feet high.

CARNATION, MARGUERITE. This flower is, in some of its habits, a decided improvement over all known forms of its species. Seed of this variety will give good flowering plants in four to five months, while the old kinds require at least a year. The flowers are large, double, very fragrant and borne in great abundance. This is an early continuous bloomer, and gives a great variety of colors. Height about fifteen inches.

Marguerite, Giants of California, mixed, pkt. 10c.



CARNATION, MARGUERITE.

Castor Bean

(Ricinus.) ZANZIBARIENSIS. A comparatively new species of wonderfully vigorous growth. The plants grow from ten to fifteen feet high. The leaves have a brilliant lustre, measure about thirty inches across, and in different plants range from bright green with green stems to deep bronze with dark red stems. We know of no annual plants so desirable for concealing unsightly objects or of more imposing beauty when standing alone on the lawn. Of very quick growth in rich soil. Tender annual.

Mixed varieties, pkt. 5c.

CELOSIA CRISTATA.—See Cockscomb.

Centaurea

Centaureas are an exceedingly interesting genus of plants, embracing annuals, biennials and perennials which though botanically alike are very different in appearance. The following varieties are easily grown from seed.

CYANUS. (Bachelor's Button, Corn Flower). This is the flower seen in such great abundance in the fields of Europe. If seed is sown as soon as the ground is fit in the spring and the flowers picked so as to prevent the plant exhausting itself by seeding, it will furnish a profusion of bright blue, purple, white or pink flowers from July until late in the autumn. One to two feet high.

Mixed, oz. 20c; pkt. 5c.

IMPERIALIS MIXED. An excellent sweet scented variety. The flowers are finely laciniated and are about the size of a carnation. They have long stems and keep well after cutting. Colors range through white, rose, lilac, purple and yellow. Hardy annual; about eighteen inches high. Oz. 80c; pkt. 10c.

CHEIRANTHUS CHEIRI.—See Wall Flower.

Chrysanthemum

Crysanthemums have deservedly become very popular. They are showy and effective in the garden, and very desirable for cut flowers. Hardy annuals, one and one-half to two feet high, and are most desirable for the garden.

Mixed, Carinatum and Coronarium varieties, pkt. 5c.

Cosmos

A very effective autumn flowering plant. Quite hardy and rapid growing, forming bush-like plants four to eight feet high and covered with large, single, dahlia-like flowers. Should be started in this latitude in March and transplanted to open ground about June 1st.

HYBRIDA, Giants of California. This variety produces a profusion of large flowers which, being gracefully poised on long stems are extremely useful for decorative purposes.

Mixed pkt. 5c.

CONVOLVULUS MAJOR.—See Morning Glory.

COREOPSIS.—See Caliopsis.

CUCURBITA.—See Gourds.

Cockscomb

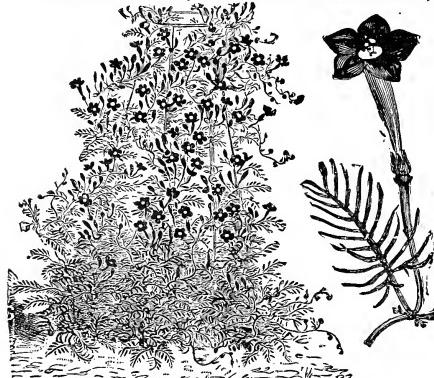
(*Celosia Cristata*.) Highly ornamental plants, producing crested heads of flowers, some-what resembling a cock's comb. They are of all shapes and colors, but of all colors the rose and crimson are the most brilliant and rich. Tender annual. The dwarf varieties are about one foot high.

Dwarf mixed, pkt. 5c.

Columbine

(*Aquilegia*.) Every well regulated lawn has a space devoted to hardy perennials and no bed of perennials would be complete without a due proportion of Columbines. They are of the easiest culture, and when once established, will furnish for many years a magnificent display of the handsome flowers each spring and summer. The beds should be kept clear of weeds and given each year a liberal dressing of well rotted manure. Hardy herbaceous perennials; two to three feet high.

Mixed double, best and finest colors, pkt. 5c.



CYPRESS VINE.

Cypress Vine

(*Ipomoea quamoclit*.) A most beautiful climber, with delicate, dark green, feathery foliage, and an abundance of bright, star-shaped, rose, scarlet or white blossoms, which contrast most beautifully with the graceful foliage. Tender annual; about fifteen feet high.

Mixed, pkt. 5c.

Dahlia

Both the single and double strains of this magnificent race of plants may be had in the greatest variety and beauty from seed. If planted early and forced they can be made to flower the first season. Tender herbaceous perennials.

Finest double, mixed, pkt. 10c.

DAISY

(*Bellis*.) The Daisy has been so far improved by selection and careful cultivation that good seed will give at least eighty per cent. of double flowers. These are as large and double as any of the named sorts that are propagated by division of the roots and are sold at a high price. The plants bloom well in the house and are splendid for early spring and summer flowering when planted in a slightly shaded situation.

Double mixed, pkt. 10c.

DELPHINIUM.—See Larkspur.

DIANTHUS.—See Pink.

DIANTHUS BABBATUUS.—See Sweet William.

DIANTHUS CARYOPHYLLUS.—See Carnation.

ESCHSCHOLTZIA

(California Poppy.) A genus of the Poppy family, and fully as valuable as the common Poppy for garden ornamentation, and as easily grown. Nothing is handsomer or richer in color than a bed of these in full bloom. Hardy annuals; height one foot.

Mixed, pkt. 5c.



DAISY.

Four O'Clock

(Marvel of Peru.) The plants are large and each needs three or four feet of space each way for its best development. The flowers are funnel-shaped, white, red and striped, and open about four o'clock in the afternoon, remain open all night, and generally perish before noon the next day. The French call it Belle de Nuit, "Beauty of the Night." Will grow in any common garden soil. Sow seed in open ground. Hardy annual; two feet high. **Mixed pkt. 5c.**



ASLAVC

Forget-Me-Not

(Myosotis.) The Forget-Me-Not is an old favorite, bearing clusters of star-shaped flowers. It thrives well in shade or open border. Hardy perennial.

ALPESTRIS. Plant of compact, bushy habit, growing six to eight inches high; flowers large blue. **Pkt. 5c.**

Foxglove

(Digitalis.) Plants grow to a height of three or four feet and produce dense spikes of brilliantly colored flowers. A valuable flower in every perennial garden; does not usually blossom until the second year. Hardy biennials or perennials. **Splendid mixed, pkt. 5c.**

Gourds

(Cucurbita.) A tribe of climbers with curiously shaped and colored fruit. Being of rapid growth, they are fine to cover old fences, trellises, stumps, etc. Tender annual; ten to twenty feet high. **Mixed pkt. 5c.**

Heliotrope

Highly valued for the fragrance of their flowers and duration of bloom. Half hardy perennial, blooming the first year from seed; one foot high.

Dark varieties mixed, very choice, pkt. 10c.
HELIANTHUS.—See Sunflower.

Hollyhock

The Hollyhock, in its present state of perfection, is very unlike its parent of olden time; it now ranks with the Dahlia, Aster, Camellia, etc., being exceedingly rich and varied in color, and as double as a rose. For a background to a flower garden, perhaps no plant is so useful. Hardy perennial; five feet high; Chater's finest mixed double varieties of the greatest perfection.

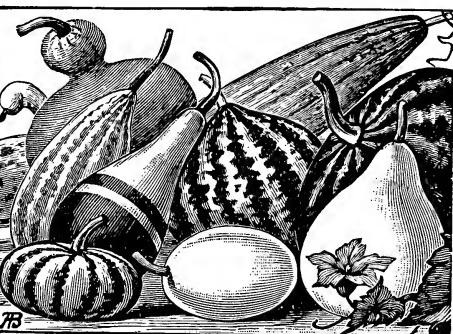
Pkt. 10c.

IBERIS.—See Candytuft.

INDIAN SHOT.—See Canna.

IPOMOEA, QUAMOCЛИT.—See Cypress Vine.

IPOMOEA, IMPERIAL JAPANESE.—See Morning Glory.



GOURDS.

Larkspur

(Delphinium.) The Larkspur is one of the handsomest and most useful of plants, and for large gardens is invaluable.

DOUBLE DWARF ROCKET. Hardy annual; ten inches high. **Mixed pkt. 5c.**

TALL STOCK FLOWERED Consolida fl. pl. Spikes of double flowers eighteen inches long. Hardy annual; two feet high. **Mixed pkt. 5c.**



HOLLYHOCK.

Lobelia

A most elegant and useful genus of plants of easy culture and well adapted for bedding, edgings, pots or rockeries. They make a neat edging for beds of white flowers and are very effective in masses, being always completely covered with flowers.

Mixed, pkt. 5c.

LATHYRUS LATIFOLIUS.—See Perennial Peas.

LATHYRUS ODORATUS.—See Sweet Peas.

Marigold

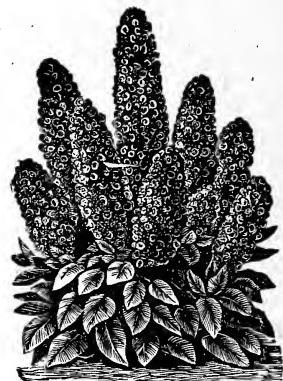
Whenever a rich and continuous display of bloom is desired, the Marigold is almost indispensable. The African varieties are tall; growing usually two feet or more, while the French are more dwarf. All are desirable. Hardy annuals; in bloom till frost comes.

AFRICAN, Double mixed, pkt. 5c.

FRENCH, Double Dwarf, mixed, pkt. 5c.

MATHIOLA.—See Stocks.

MARVEL OF PERU.—See Four O'Clock.



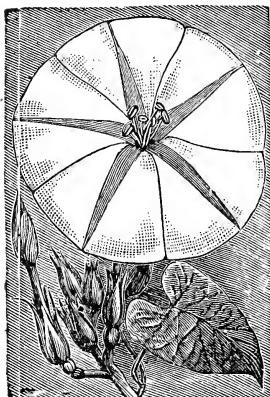
MIGNONETTE.

Mignonette

A well-known hardy annual producing dense, semi-globular spikes of exceedingly fragrant flowers. It is so fragrant that the whole atmosphere around is perfumed. If sown at intervals in spring and early summer, it will bloom till killed by frost. Seed sown in autumn will bloom early in spring. Hardy annual; one foot high.

RESEDA ODORATA GRANDIFLORA. Large flowered sweet Mignonette.

Pkt. 5c.

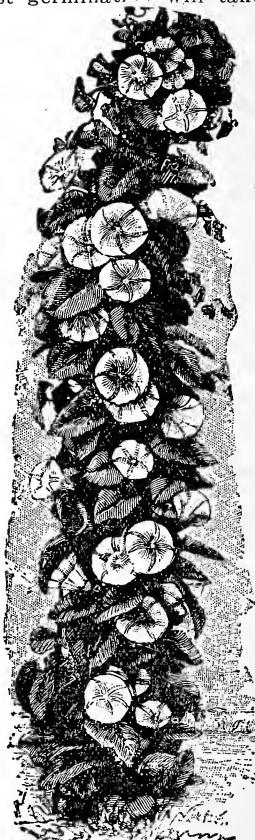


MOON FLOWER.

Moon Flower

(*Ipomoea Grandiflora Alba*.) This is one of the most vigorous of all the summer climbers. Will grow thirty to forty feet in a single season, and will be covered with its large, white flowers every evening and cloudy day. The hard outer coat of the seed should be cut through with a sharp knife and the seed planted in a warm place. If the soil be kept moist germination will take place in ten days to two weeks. After the plants are up, tend carefully and plant out when danger from frost is past. Rich soil tends to make the plant run to vines and leaves, while poor earth will produce earlier and more abundant flowers. This variety is also known as *Ipomoea Notiflora*.

Pkt. 10c.



Morning Glory

(*Convolvulus Major*.) A handsome, showy climber, of easy culture, suitable for covering arbors, windows, trellises, old stumps, etc. It is so perfectly hardy as to grow in almost any soil. Hardy annual; ten feet high.

Mixed pkt. 5c.

GIANT JAPANESE MIXED. Flowers of largest size, some are brilliant red or rich blue; others are equally brilliant with broad margins of clear white; some are striped or dotted with blue or red on white or lemon yellow ground, others are clouded with blue and red. The foliage in some plants comes plain green, in others it is mottled with white and shades of yellow or yellowish green.

Pkt. 5c.

Mourning Bride

(*Scabiosa, or Sweet Scabious*.) An improved stock which bears a profusion of flowers. These are larger and fuller than the old type, and their variety and brilliancy of color make them very desirable for cut flowers. Hardy annual; about one foot high.

DOUBLE DWARF, mixed, pkt. 5c.

MOURNING GLORY.

NASTURTIUMS

These most popular, free-flowering, tender annuals are of two distinct types—the Tall, or running varieties and the Tom Thumb, or dwarf varieties. Both are of easiest culture, growing and blooming in great profusion even in the poorest soils. The tall varieties are of strong, vigorous growth, throwing out running shoots which can be trained upon strings or wires, or can be readily made to climb the ordinary paling fences or wire netting. They are also extremely showy as trailing plants when set around borders of vases or ornamental boxes, on the lawn, and can be effectively planted at the top of a steep slope and allowed to run down the bank. They are equally beautiful simply trailing on level ground. The dwarf or "Tom Thumb" varieties, being of neat, compact growth, can be planted as borders to flower-beds or along garden walks.



NASTURTIUM, TALL.

Seed should be planted thinly when trees are starting out in leaf. When well started, young plants should be transplanted or thinned out to stand six or more inches apart for tall running varieties, and ten or twelve inches for those of the dwarf, compact-growing sorts, as the latter grow in rounded bush form with quite dense foliage, and if grown too thickly in wet soil are apt to blight or rot off during hot summer months. Both types bloom with the greatest freedom, producing flowers of most brilliant and varied color. These are not only bright and showy on the plants, but last well when cut for house decoration. They blossom freely at a time when the supply of flowers is not very abundant in the garden. For winter blooming in the house, seeds of the climbing or running varieties should be planted singly in flower pots early in September. In planting, it is best in heavy soil to make a slight ridge for the seed, so that surplus moisture may drain away readily. Seed should be covered one inch or more in depth, and, if at all dry, the soil should be firmly pressed above the seed, so as to enter closely the corrugations.

Nasturtium, Tall

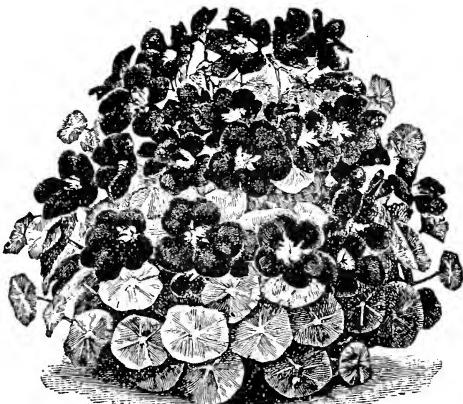
(*Tropaeolum Lobbianum*.) The Lobbianum differs from the common running nasturtium, in being less rank growing, more floriferous and having richer, more varied colored flowers of many shades, from the richest scarlet to very deep maroon. Fine for covering arbors, trellises and rustic work. Half hardy annual; about ten feet high.

Mixed Tall (Lobbianum varieties), pkt. 5c.

Nasturtium, Dwarf

(*Tropaeolum Minor*.) A bed of dwarf nasturtiums in the yard is very brilliant and attractive, blooming all the season. Hardy annual; about one foot high.

Mixed dwarf, pkt. 5c.

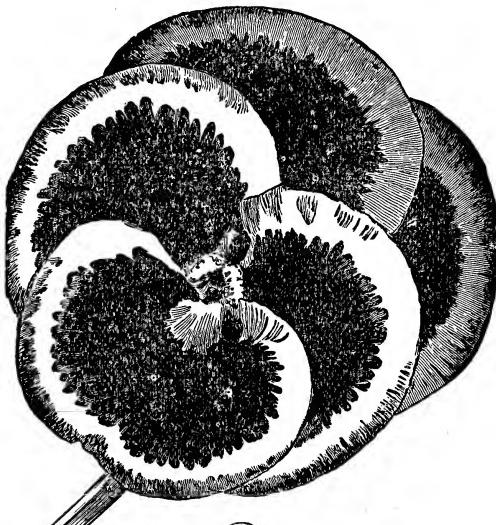


NASTURTIUM, DWARF.

PANSY

Pansies, next to Sweet Peas, are the most popular of all flowers grown from seed. It is needless to say anything in praise of such a universal favorite. They are popular everywhere, both for the brilliant beauty of their flowers and the long continuation of bloom.

How to Grow Pansies.—Pansies grow best and produce the largest flowers in light, rich soil, and cool, moist weather, but will flower freely from spring-sown seed during the hot summer months. Sow the seed thinly in quite shallow drills as early in the spring as the soil can be dug in fine, loose condition. When the young plants are well started thin them out or transplant to fresh beds, setting them eight inches apart each way. Another sowing may be made about July 1st for fall blooming, and as the soil is liable to be rather dry it should be packed firmly over the freshly sown seed. Plants raised from this sowing will produce fine large flowers in the fall. For planting in cold frames for early spring flowering the seed should be sown the latter part of August or early in September. It is not well to try to start them in the house or hot-bed, as the air is too warm and close. Under these conditions they shoot up rapidly, are quite thin and spindling, and produce only small-sized flowers, but as pot plants for flowering in a cool room in winter they will bloom quite nicely.



IMPERIAL GERMAN PANSIES.

Imperial German Pansies

The Imperial German Pansies are famous for their almost endless variety of charming shades of color, united with large size and perfect form of flowers. They embrace all the solid or self-colors, delicately shaded flowers, five spotted or three-spotted; edged or bordered flowers of various colors, each with a distinct rim of white, yellow or blue; dark and light marbled varieties, flowers with clear, distinct eyes; striped flowers of striking beauty, and vividly colored fancy varieties, blotched, veined, marbled and marined.

Finest Mixed, pkt. 10c.

Improved Giant Trimardeau

An entirely distinct and beautiful race with flowers of the richest and most varied shades of colors. Plants are vigorous, compact growth. Remarkable for the extra large size of the flowers, which, however, are not so circular in form as the Imperial German. The flowers, which possess unusual substance and consistency, are each marked with three large blotches or spots.

Pkt. 10c.

Madam Perret Pansies

The flowers of this strain are of mammoth size, good substance, and finest colorings. Under favorable conditions the flowers frequently measures from two and a half to four inches across, but a cool location and very rich soil are needed to produce flowers of this size. The mixture embraces many of the fine-named sorts which have been developed to this large size; all the flowers are varied and beautiful in shades and markings.

Finest mixed, all colors; pkt. 10c.

PEAS, Everlasting

(*Lathyrus Latifolius*.) A perennial climber, producing a succession of clusters of white, rose or purple blossoms. Suitable for trellises, arbors, etc. Hardy perennial; ten feet high.

Mixed, pkt. 5c.

Petunia

Petunias are unsurpassed for massing in beds. Their richness of color, duration of bloom and easy culture will always render them popular. They do well sown in open border in spring, or earlier in cold frame or hot bed, and transplanted eighteen inches apart. Tender perennial, but blooms profusely the first season. One and a half feet high. The fully double Petunias do not produce seed, so that to procure double flowering plants we must use seed of single flowers which have been carefully fertilized by pollen from double ones. The seed we offer is the result of careful hybridization, and can be depended upon to give as large a proportion of double flowers as any.

Finest double mixed, pkt. 25c.

Finest large flowering, single, mixed, pkt. 10c.



PETUNIAS.

Phlox Drummondii

Very hardy annuals, thriving in almost any situation, and unequalled in magnificent display of their many and brilliant flowers. Plants from seeds grown in open ground in fall or early spring will begin flowering about July 1st and remain literally covered with bloom until after severe frosts late in autumn. For masses of separate colors or for cutting for bouquets, they are unsurpassed. One foot high.

Finest Mixed. Composed of the best of the large flowered varieties. **Pkt. 5c.**



PHLOX DRUMMONDI.



PINK.

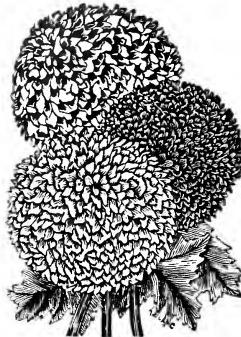
Pink

(*Dianthus*.) The *Dianthus* family furnishes the florist with many of his most beautiful flowers, including the Carnation, Sweet William and Florists' Pink, Chinese and Japanese in all their varieties. Hardy and half-hardy biennials and perennials, but nearly all blooming the first year from seed.

DOUBLE CHINA MIXED. A biennial of dwarf habit; flowers the first year, but the bloom is stronger the second.

Pkt. 5c.

POPPY



CARNATION.
IMPROVED DOUBLE.

THE SHIRLEY. Everyone knows the old common corn poppy, or red weed, with its bright scarlet flowers. The Shirley is a strain of this magnificent species, which sports to numberless shades of colors, from pure white to rose, pink, carmine and deepest crimson. If the flowers are cut when they first open, they may be kept many days. **Pkt. 5c.**

TULIP FLOWERED. Produces large, splendid, bright scarlet flowers well above the foliage. The petals form a tulip-shaped cup, and after a time black spots appear at the base of each petal. Strikingly beautiful, reminding one of a bed of brilliant tulips; hardy annual; about one foot high. **Pkt. 5c.**

IMPROVED DOUBLE CARNATION, MIXED. In dazzling richness and variety of colors the flowers are very showy. Simply scatter the seed in the open ground, and a mass of beauty will result; hardy annual, two feet high. **Pkt. 5c.**

Papaver Somniferum, of which the Carnation Poppy is an improved form, is the species used for the extraction of opium.

PORTULACA

There are scarcely any flowers in cultivation that makes such a dazzling display of color as a bed of Portulacas. They are in bloom from about the first of July till killed by frost in autumn. Tender annual; about six to eight inches high. **Fine mixed single, pkt. 5c; finest mixed, double, pkt. 10c.**

SCABIOSA.—See Mourning Bride.

Sunflower

Valuable as a screen to hide unsightly places, and as a background for lawns. Hardy annual.

GLOBOSUS FISTULOSUS. Produces very large, exceedingly double flowers of bright yellow color; plants about five feet high. **Pkt. 5c.**

MAMMOTH RUSSIAN. The giant among sunflowers; grows about six feet high. The stocks are sometimes used for fuel. **Pkt. 5c.**

Stocks

The stocks as now grown are indispensable where a fine display of flowers is wanted. To such perfection has selection brought them that good seed will give a large proportion of flowers as double and as large as the named sorts grown from cuttings.

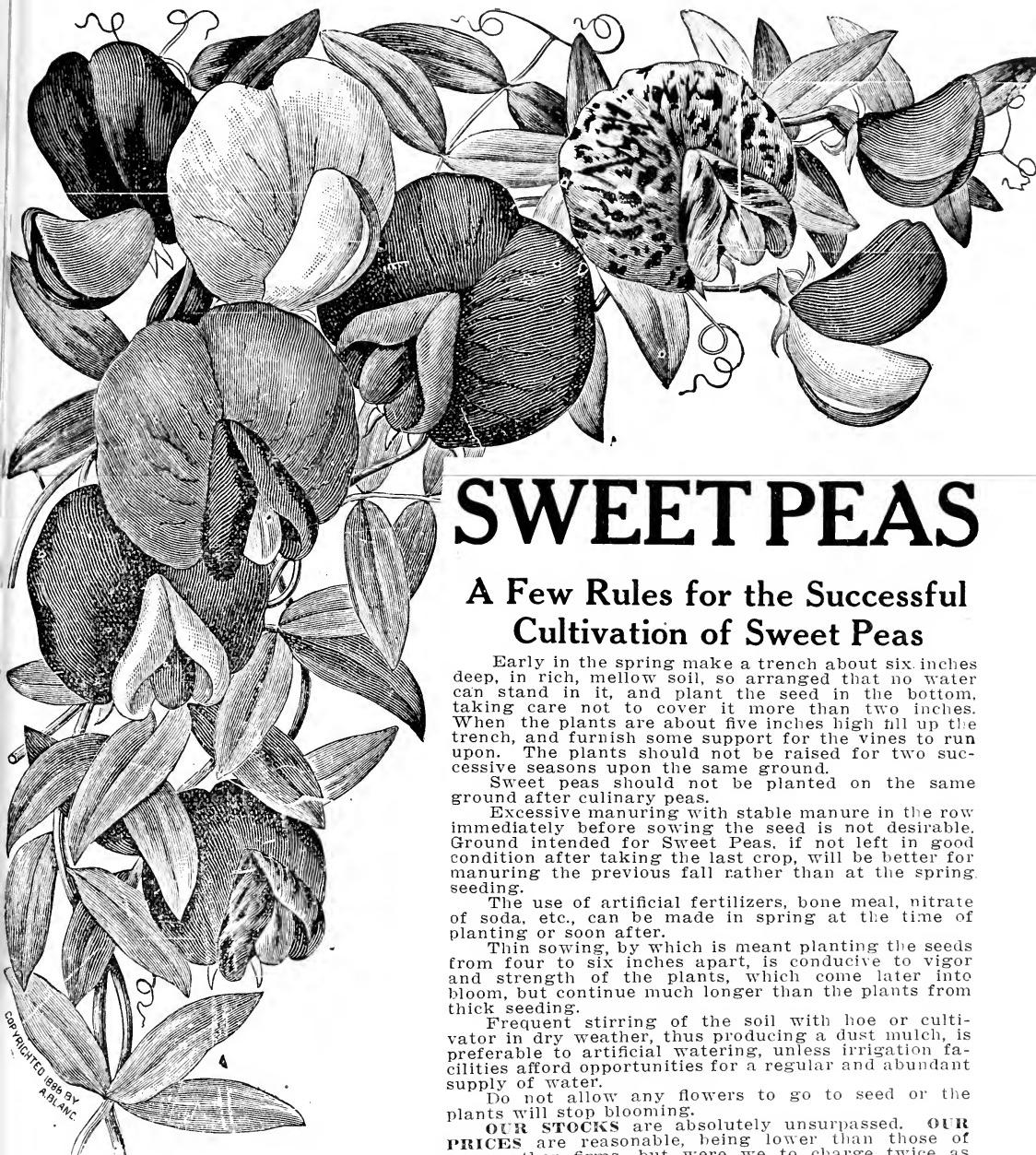
Double German Ten Weeks, mixed. Pkt. 10c.

Snapdragon

(*Antirrhinum.*) An old border plant with dark and glossy leaves and long spikes of curiously shaped, brilliant colored flowers, with finely marked throats. They have been much improved of late years by careful selection. They blossom the first season from seed sown in spring. Tender perennial; one and one-half to two feet high. **Finest mixed. Pkt. 5c.**



STOCKS.



SWEET PEAS

A Few Rules for the Successful Cultivation of Sweet Peas

Early in the spring make a trench about six inches deep, in rich, mellow soil, so arranged that no water can stand in it, and plant the seed in the bottom, taking care not to cover it more than two inches. When the plants are about five inches high fill up the trench, and furnish some support for the vines to run upon. The plants should not be raised for two successive seasons upon the same ground.

Sweet peas should not be planted on the same ground after culinary peas.

Excessive manuring with stable manure in the row immediately before sowing the seed is not desirable. Ground intended for Sweet Peas, if not left in good condition after taking the last crop, will be better for manuring the previous fall rather than at the spring seeding.

The use of artificial fertilizers, bone meal, nitrate of soda, etc., can be made in spring at the time of planting or soon after.

Thin sowing, by which is meant planting the seeds from four to six inches apart, is conducive to vigor and strength of the plants, which come later into bloom, but continue much longer than the plants from thick seeding.

Frequent stirring of the soil with hoe or cultivator in dry weather, thus producing a dust mulch, is preferable to artificial watering, unless irrigation facilities afford opportunities for a regular and abundant supply of water.

Do not allow any flowers to go to seed or the plants will stop blooming.

OUR STOCKS are absolutely unsurpassed. **OUR PRICES** are reasonable, being lower than those of many other firms, but were we to charge twice as much the **quality** of the stocks could not be improved.

MIXTURES OF SWEET PEAS

One of the most satisfactory ways of growing Sweet Peas is in a mixed row. The mixtures we offer, are not made up of inferior or cheap stocks, but are of the **very best qualities** and are well proportioned so as to give a pleasing variety of bloom.

FINEST MIXED. This mixture consists only of the best large flowering sorts, new and old, in just the right proportions of white, bright red, pink, mauve and other colors to make the most brilliant show possible in the garden. We have given a great deal of study to selecting the best sorts, in proper proportions, and offer this mixture as the finest produced. We know it cannot be excelled at any price. **PKT. 5c; oz. 10c; 1 lb. 25c; 1b. 65c, postpaid.**

CHOICE MIXED. A cheap mixture, but a very good one, containing all the distinct shades and colors of the older and also many of the comparatively new varieties, but not the most recent introductions. **Oz. 5c; 1 lb. 20c; 1b. 50c, postpaid.**

SWEET PEAS

Continued

AMERICA. White, nearly covered with splashes, stripes and dots of exceedingly bright carmine. The most brilliant red striped sort. Pkt. 5c; oz. 10c; 1 lb. 20c; lb. 60c.

AURORA. Very large and of fine form. The standard and wings are striped and flaked with delicate orange-salmon pink over white. Pkt. 5c; oz. 10c; 1 lb. 20c; lb. 60c.

BOLTON'S PINK. Orange pink veined with rose, large size; semi-hooded form. An excellent variety. Pkt. 5c; oz. 10c; 1 lb. 25c; lb. 80c.

DOROTHY ECKFORD. Vine very robust and exceedingly floriferous. Flowers of extra large size, pure white, beautifully shell-shaped; usually three on a stem. Pkt. 5c; oz. 10c; 1 lb. 25c; lb. 75c.

DAINTY. White, edged with light pink. Hooded form; very long stem. Similar to but lighter than Eliza Eckford. Pkt. 5c; oz. 10c; 1 lb. 20c; lb. 65c.

EMILY HENDERSON. A bold, well formed, clear white flower. Wings broad and well expanded. An early and wonderfully free and persistent bloomer. Pkt. 5c; oz. 10c; 1 lb. 20c; lb. 60c.

EXTRA EARLY BLANCHE FERRY. Vigorous and hardy though dwarf habit and a wonderfully free and persistent bloomer. It will be found to be the first to furnish flowers, either in greenhouse or out of doors and it will continue to furnish them in great abundance longer than most varieties. Pkt. 5c; oz. 10c; 1 lb. 25c; lb. 75c.

FLORA NORTON. The best clear blue sweet pea. Medium size, open form, usually three flowers on a stem. Pkt. 5c; oz. 10c; 1 lb. 20c; lb. 60c.

HON. MRS. E. KENYON. The best of the deeper primrose shades; a beautiful, large semi-hooded flower. Pkt. 5c; oz. 10c; 1 lb. 20c; lb. 60c.

HELEN PIERCE. Veined and finely mottled bright blue on white. Exceptionally attractive in coloring. Pkt. 5c; oz. 10c; 1 lb. 25c; lb. 80c.

KATHERINE TRACY. The color is a soft but brilliant pink in wings and standard. Plants vigorous and give a profusion of flowers which continue large and fine until the end of the season. Pkt. 5c; oz. 10c; 1 lb. 20c; lb. 65c.

KING EDWARD VII. A bright, crimson scarlet of largest size; open form well expanded, round standard. One of the very best. Pkt. 5c; oz. 10c; 1 lb. 25c; lb. 75c.

LADY GRISSEL HAMILTON. A large flower similar in color to Countess Radnor, but nearer blue. Pkt. 5c; oz. 10c; 1 lb. 25c; lb. 80c.

LORD NELSON. Deeper in color than navy blue and especially on the vine is a very attractive rich deep blue. Pkt. 5c; oz. 10c; 1 lb. 25c; lb. 80c.

LOVELY. Flowers very large, fine form. A delicate shell pink tinged with yellow, often four flowers on a stem. Pkt. 5c; oz. 10c; 1 lb. 25c; lb. 75c.

MISS WILLMOTT. A fine, semi-hooded type; standard orange pink; wings rose tinted with orange. Of very large size; long stems; plant very vigorous. Pkt. 5c; oz. 10c; 1 lb. 20c; lb. 65c.

MRS. GEORGE HIGGINSON, JR. A very clear, delicate shade of lilac blue, self-colored; medium size. Semi-hooded form, usually three flowers on a stem. Pkt. 5c; oz. 10c; 1 lb. 20c; lb. 65c.

MRS. WALTER WRIGHT. A very large, hooded, rose purple self, changing to rich bluish purple. A splendid variety. Pkt. 5c; oz. 10c; 1 lb. 25c; lb. 60c.

OTHELLO. A very dark maroon, practically self-colored, with almost black veining. Large size, hooded form. Pkt. 5c; oz. 10c; 1 lb. 25c; lb. 75c.

PRIMA DONNA. The stems bear three or four very large, perfect flowers of a brilliant, yet soft shade of pink. Pkt. 5c; oz. 10c; 1 lb. 20c; lb. 60c.

PRINCE OF WALES. Flowers very large and a peculiar brilliant red, distinct in shade from any other sweet pea. Very attractive. Pkt. 5c; oz. 10c; 1 lb. 25c; lb. 75c.

QUEEN ALEXANDRA. A magnificent, bright scarlet red, very large, semi-hooded. Unsurpassed in brilliancy of color. Pkt. 5c; oz. 10c; 1 lb. 25c; lb. 80c.

STELLA MORSE. Flowers of a peculiar warm salmon-pink. A combination yellow and pink. A combination yellow and pink which is distinct and very attractive. Pkt. 5c; oz. 10c; 1 lb. 25c; lb. 75c.

Spencer Varieties

ASTA OHN. Suffused lavender or tinted mauve; true Spencer form, large and wavy. One of the best. Pkt. 10c; oz. 25c; 1 lb. 75c; lb. \$2.50.

COUNTESS SPENCER. Bright, clear pink; very large, open form; long stems. A very desirable variety. Pkt. 10c; oz. 25c; 1 lb. 75c; lb. \$2.50.

DAINTY SPENCER. White suffused and edged with pink; large and of Spencer form; very free blooming. Pkt. 10c; oz. 25c; 1 lb. 75c; lb. \$2.50.

FLORENCE MORSE SPENCER. A very large, delicate blush with pink margin. Of the best type; excellent for cutting. Pkt. 10c; oz. 25c; 1 lb. 75c; lb. \$2.50.

HELEN LEWIS. A rich crimson orange, with wings of orange rose. Size very large, fine Spencer form. Pkt. 10c; oz. 25c; 1 lb. 75c; lb. \$2.50.

KING EDWARD SPENCER. Brilliant crimson scarlet; very large size and of open form. The best of the bright red Spencers. Pkt. 10c; oz. 20c; 1 lb. 65c; lb. \$2.25.

WHITE SPENCER. Standard and wings of pure white, beautifully waved and fluted. An especially attractive variety. Pkt. 10c; oz. 20c;

SPENCERS MIXED. All the Spencer varieties included in making up this magnificent mixture. A splendid range of colors is thus assured in this comparatively new class of Sweet Peas of such remarkably large size and wonderfully attractive form. Pkt. 5c; oz. 20c; 1 lb. 60c; lb. \$2.00.

Sweet William

(Dianthus Barbatus.) For display in the garden the Sweet William is unsurpassed. The seed can be planted very early in the spring, in open ground, and will blossom the following summer; or it can be sown in August and will make fine blooming plants for spring. Hardy perennial, one and one-half feet high.

Finest mixed, single pkt. 5c.

Finest mixed, double, pkt. 5c.

TAGETES.—See Marigold.

TROPAEOLUM CANARIENSE.—See Canary Bird Flower.

TROPAEOLUM LOBBIANUM.—See Nasturtium, Tall.

TROPAEOLUM MINOR.—See Nasturtium, Dwarf.

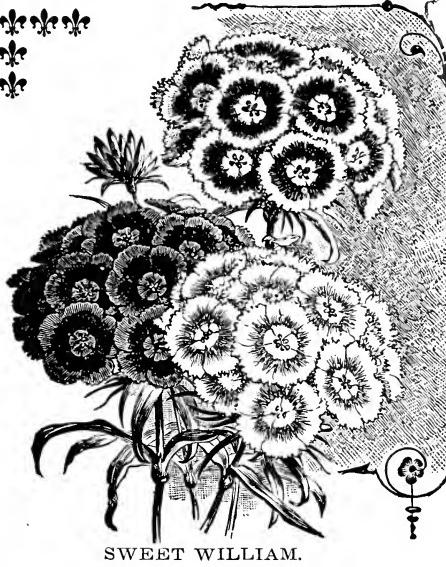
VIOLET

The violets commonly grown by florists are propagated from cuttings. The flowers grown from seed are smaller and more delicately colored.

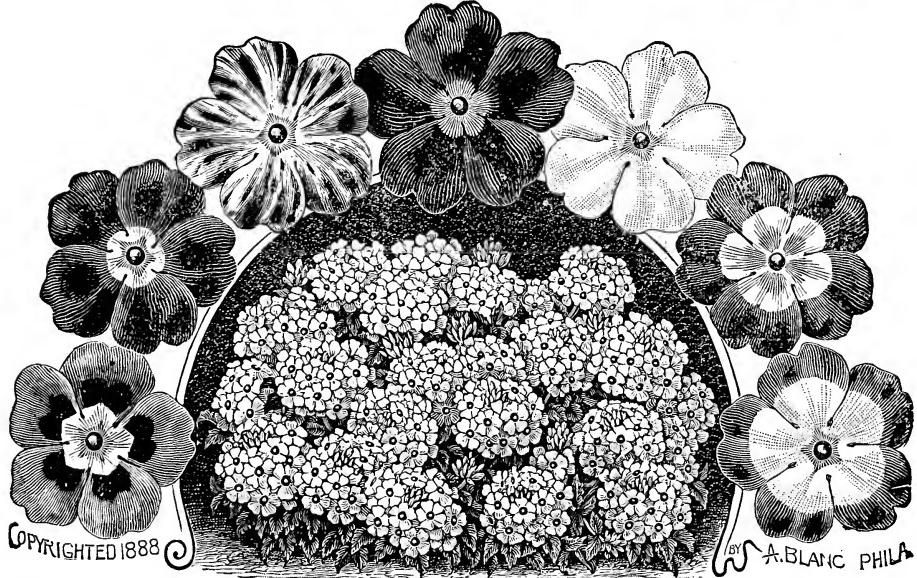
Sweet Scented, Pkt. 10c.

VIOLA TRICOLOR.—See Pansy.

VERBENA



SWEET WILLIAM.



MAMMOTH VERBENAS.

MAMMOTH. No plant is more generally cultivated, or more deservedly so, than the Verbena, as no plant excels it for masses in beds on the lawn. In the varieties may be found every color except yellow. If sown in open ground in May they will bloom in August, but if started in the house in pots in winter they will be in bloom sooner. Half hardy perennial trailer; one foot high. Finest mixed; embraces all colors. Pkt. 5c.

Wall Flower

(Cheiranthus Cheiri.) The large, massive spikes of the Wall Flower are very conspicuous in beds and borders, and are very useful in making bouquets. Sow the seed early in hot-beds, and while the plants are small, prick them out in pots and sink the pots in the earth. On approach of cold weather remove the pots to the house, and the plants will bloom all winter. Tender perennial, one and one-half feet high. Mixed double. Pkt. 10c.

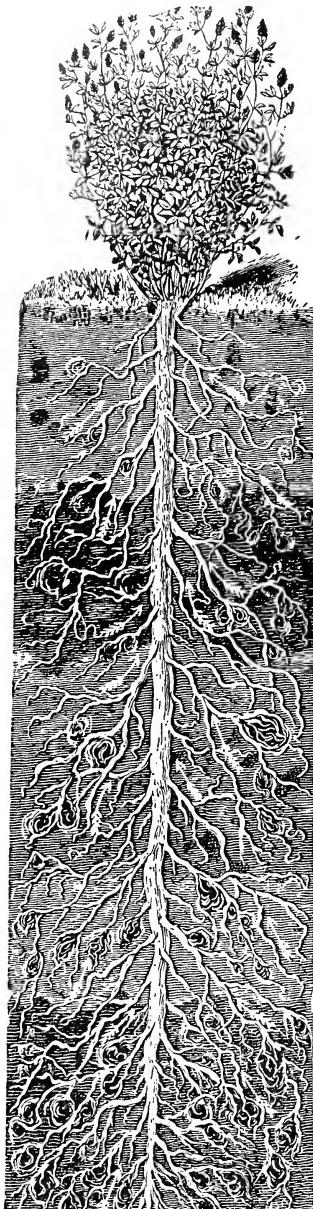
Wild Cucumber

Ornamental climbing Cucumbers with curious fruit, remarkable for its luxuriance and rapidity of growth. Height six feet. Half hardy annual.

ESCHINOCYSTIS LOBATA. Pkt. 5c.

Zinnia

A very showy plant, with large, double, imbricated flowers, which, when fully expanded might easily be mistaken for dwarf Dahlias. Half hardy annual; about eighteen inches high. Double, finest mixed. Pkt. 5c.



ALFALFA OR LUCERNE.

CLOVER SEEDS

Prices on all Clover Seeds subject to change without notice

Alfalfa or Lucerne

The most valuable forage plant, particularly adapted for our Western climate and soil. It requires a deep, mellow soil; newly broken sod does not do so well. It thrives best on a sandy loam (the richer the better), while it has proved a success on heavy, compact clay soil. In the dryest and most sultry weather, when every blade of grass withers, Alfalfa is as fresh and green as in the spring, as its roots go down from ten to twenty feet to the moisture of the ground. Although a prodigious yielder, it does not exhaust the soil, but rather improves the ground by the decay of its long roots, and converts it into rich ground, full of vegetable matter. The seed may be sown early in the spring (as soon as the frost is out of the ground), in order to catch the spring rains, as it needs moisture to germinate. In localities where irrigation is used, it can be sown at any time during the summer months. In our State it is not advisable to sow later than the first part of September on account of early frosts, as the young, tender plants, not having sufficient roots, would succumb to our cold winters. Late fall sowing—say in October or November—is not advisable in localities where wind storms are prevalent during winter and early spring, as the seed will be blown away before it has a chance to take root. Most of our alfalfa growers prefer sowing the seed broadcast, while others are more in favor of drilling it in. If the latter plan is pursued, we advise drilling the seed both length and cross-ways—say half quantity each way—in order to secure a more even stand. There is a great deal of discussion whether the seed should be sown by itself or with other grains, both methods being strongly advocated. Owing to the fact that Alfalfa needs light and sun, the majority of growers suggest sowing the seed by itself, providing it can be put in the ground early in the season, but when the sowing is delayed, we advise to sow oats or barley with it to afford some protection to the young plants against the scorching rays of the sun in midsummer. Another circumstance has to be taken into consideration. If the ground proves to be very weedy, sow in connection with grain, by all means, a crop of barley or oats—they can be raised as well as a crop of weeds. After the grain has been cut, and this should be done as early as possible, it will be found that the Alfalfa has made such growth as to prevent any danger of being choked out by the weeds, and it will care for itself. Irrigate immediately after the grain is cut, and the Alfalfa will push out fresh shoots at once, and will furnish a light cutting in the fall, or at least good pasture. It is more difficult to establish the first year, but will, when once started, produce a profitable crop—under favorable circumstances, three and even four crops are cut yearly, aggregating five to seven tons to the acre. Never sow less than twenty pounds of good clean seed to the acre, for thin sowing produces thick and coarse stalks, not relished by stock. The Alfalfa flourishes up to an altitude of about 8,000 feet above the sea level; at higher altitudes it is not likely to thrive. How long it will live is a question not settled yet. The reports speak of Alfalfa fields in Chili (whence it was brought to California under the name of Chili Clover) that are several hundreds of years old, still bearing good crops. The proper time to cut it is when the plant is in full bloom. The seeds ripen to perfection, and are a source of considerable revenue to our farmers. If intended to raise Alfalfa for seed, twelve to fifteen pounds is plenty to sow on one acre. The seed has to be saved from the first crop, as the second or third cutting does not mature evenly, does not fill out plump and heavy, and does not possess the proper germinating power. It is worthy of trial in any locality where it has not already been tested.

30c per pound, postpaid; 100 lbs. at market price.

Bokhara, Sweet or Bee Clover

Also called Giant Incarnate, or German Mammoth

A tall, shrubby plant, with many white flowers of delicious fragrance, on which bees delight to feed. It will grow on poor soil, and can there be sown and plowed under and used as a fertilizer. Sow at the rate of fifteen pounds to the acre. **30c per lb. postpaid; 100 lbs. at market price.**

Crimson Trefoil, or Scarlet Italian

An annual variety in common use in the south for feeding green and for hay. The yield in fodder is immense and after cutting, it at once commences growing again, continuing until severe, cold, freezing weather. It grows about one foot high; the roots are nearly black; leaves long; blossoms long, pointed and of very deep red or carmine color. Makes good hay. Sow ten to fifteen pounds per acre. **Lb. 30c, postpaid.** For larger lots inquire for prices.

CLOVER SEEDS

Continued

Alsyke, or Swedish

The advantages which the Alsyke Clover has over Red Clover and other varieties are its hardness and true perennial character. It will adapt itself to a great variety of soils, growing on the edge of a stream or in a swamp and on low ground, and yet flourish on dry and stubborn stiff clays and upland soils. It is capable of resisting the extremes of drought and wet alike. It is well liked by all stock, either green in pasture or cured for hay. Horses, cows and sheep prefer it to Red Clover. It makes finer and better hay as the stocks are not so thick and woody as those of Red Clover. It is very sweet and fragrant, and liked by bees. Grows fifteen to twenty-four inches high, heads are rounded, flesh-colored. It can with advantage be sown together with Timothy, as both will grow on low ground and moist soil and mature and ripen together at about the same time. If grown for the seed, this is taken from the first cutting.

When sown by itself, six pounds of seed are required per acre.

Lb. 40c, postpaid; 100 lbs. at market price.



MEDIUM RED, OR JUNE.

White, or Dutch

A small, creeping perennial variety, valuable for pasturage and for lawns. It accommodates itself to a variety of soils, but prefers moist ground. Being very hardy and of a creeping habit, it will also prevent the ground from being washed by heavy rains. It is rarely sown alone, but used mainly for sowing with other grass seeds, especially Blue Grass, to obtain permanent pastures. Sow in the spring, at the rate of six pounds per acre, or when used with other grasses, half that amount.

Lb. 50c, postpaid; 100 lbs. at market price.



ALSYKE.

Medium Red, or June

This is by far the most important of all the varieties for practical purposes. Sow in the spring or fall, and if no other grasses are used, at the rate of twelve to fifteen pounds per acre; more is required on old, stiff soils than on new and lighter ones.

Lb. 35c, postpaid; 100 lbs. at market price.



WHITE, OR DUTCH.

GRASS SEEDS

Prices on all grass seeds subject to change without notice. Write for special prices on quantities.

WHEN AND HOW TO SOW THE SEED.

The most rapid way of obtaining a grass crop is to sow the grass seed alone without any grain or nurse crop. If this is done early in the spring a nearly full crop of hay or pasture can be had the same year and a heavy one the next year. Many farmers sow grass seeds in the spring with grain to save labor, and as they suppose, to protect the young plants. However, it involves the loss of a year in either hay or pasture, aside from endangering the grass, and likely losing it altogether. The young plants are in no way protected by the grain, and when this is cut the young grass and clover is very tender, having been shaded by the grain, and the cutting or harvesting of the so-called nurse crop suddenly exposes the young grass to the sun at the hottest season of the year. There is great danger then that it will be burned out. When the grass is sown by itself the young plants are hardened and more able to withstand the hot and dry sun.

After the ground is carefully prepared, the seed is sown broadcast, which can be nicely and evenly done and very quickly with the little hand seeders. As grass seed is very fine and should not be covered very deep, the natural covering which may or may not take place after a shower of rain or after the action of early spring frosts, is sometimes sufficient, and sometimes this succeeds perfectly. However, it is best, and usually more certain, to depend upon some other way of covering the seed. A very good way is to roll the land. The pressure of a common farm roller on clover or grass seed, sown on the freshly harrowed soil, covers it slightly and is almost sufficient, besides being one of the best means to insure the quick and even germinating of the seed. Another good way to cover the fine seed is to pass an evenly made brush harrow over it.

Timothy

(*Phleum pratense.*)

This is the most valuable of all the grasses for hay, especially in the North. Thrives best on moist, loamy soils of medium tenacity. It should be cut just when the blossoms fall. Sow early in the spring or fall, at the rate of 12 pounds per acre, if alone, but less if mixed with other grasses.

30c lb. postpaid: 100 lbs. at market price.



TIMOTHY.

Red Top

(*Agrostis vulgaris.*)

It is a good, permanent grass, standing our climate well, and makes good pasture when fed close. Is valuable for low, wet meadows, producing a large return in good hay. When sown alone, use about twenty pounds of the unhulled seed per acre. Sow in spring or fall.

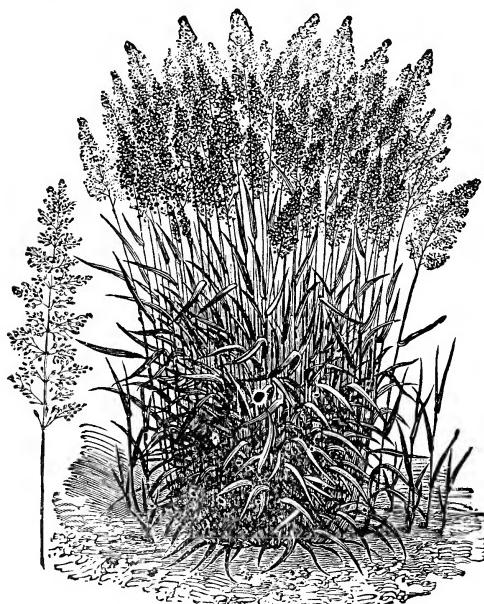
Red Top Fancy (cleaned from chaff). Sow eight to ten pounds per acre. **Lb. 40c, postpaid.** For larger lots inquire for prices.

Red Top Unhulled Fancy (free from light chaff). **Lb. 30c postpaid;** for larger lots inquire for prices.

Meadow Fescue, or English Blue Grass

(*Festuca pratensis.*)

A perennial, from two to four feet high, with flat, broad leaves. One of the standard European grasses. It needs rich ground and succeeds well on prairie soil. An excellent pasture grass to take the place of the wild grasses, as it yields a large amount of early and late feed. Sow about twenty-five pounds per acre. **Lb. 45c, postpaid;** for larger lots inquire for prices.



RED TOP.

Grass Seeds

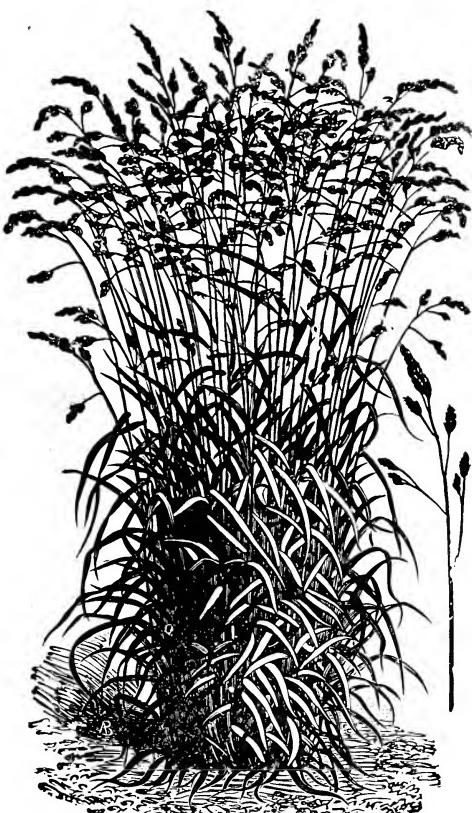
Continued

Bromus Inermis

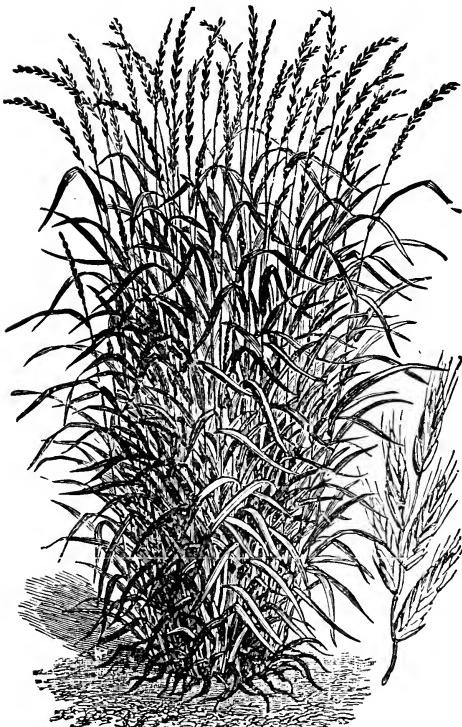
Also known as Austrian Brome Grass and Awnless Brome Grass.

Of all the varieties of the cultivated grasses this can be considered the best and most promising for this country. It is a native of Europe, but it is not a new and untried variety in this country any more. It has been sown and tried in nearly all parts of the country and proved to be well adapted for different conditions of soil and climate. It is well suited for hay or pasture, and will produce a very heavy yield of both. It comes up early in the spring, makes a rapid growth, can be cut for hay early, and used for pasture afterwards, making abundant pasture. It remains fresher and greener during the larger part of the year than almost any other grass. It is thoroughly permanent and very hardy, enduring very low temperature in the winter and having great power to grow in dry climates and resist drought and thrive and give abundant pasture or hay crops in dry seasons, when everything else would fail. It will grow on all kinds of soil. All kinds of stock eat it greedily, and it is very rich in nutritive value or flesh forming ingredients. It is easily cultivated, since it is suited to all soils. It is sown early in the spring in the same way as other grass seeds, and since it is rather slow to start and does not make much growth the first year, is well suited to sow with grain for a nurse crop. About 25 to 30 pounds of seed should be sown per acre. It grows two to four feet high, flowering in June and is a true perennial.

Lb. 30c postpaid; 100 lbs. at market price.



BROMUS INERMIS.



ORCHARD GRASS.

Orchard Grass

(*Dactylis glomerata*.)

For pasture and hay land a most valuable grass, and on account of its earliness very valuable for permanent pastures. When grown for hay, more than one crop can be obtained in one season, and where but one crop is taken the after growth is very heavy, and gives splendid and rich pasture till late in the fall. It is much given to growing in tufts, and is therefore not adapted for sowing alone or by itself; but when sown together with other grasses or in Clover-Grass mixtures, a close and even sod can be had. It is well suited to shady places, such as orchards and groves. Although it is adapted for a wide range of soil, and will grow on almost all land, it gives best results on deep, rich, sandy loam or clay soils. Sow 25 to 30 pounds to the acre.

Lb. 35c postpaid; 100 lbs. at market price.

Tall Meadow Oat Grass

(*Avena elatior*.)

For either hay or a permanent pasture a most valuable grass, which can be successfully grown in all parts of the country. It will not winter-kill, and will live and endure our cold Northern winters, and can also be successfully grown in parts of the country where it is sometimes very hot and dry. It starts very early in spring, and is a very valuable pasture grass on this account. Succeeds best in deep, rich, sandy soils and even on clay and heavy dry soil it does well. It is a true perennial, growing three to five feet high, flowering in May or June. Sow twenty to twenty-five pounds to the acre.

Lb. 35c postpaid; 100 lbs. at market price.

GRASS SEED, Cont'd



ITALIAN RYE GRASS.

English Rye Grass

Or Perennial Rye Grass.

It seems to be especially adapted for pastures; will endure close cropping, is of strong and quick successive after-growth. It produces an abundance of foliage, which remains bright and green throughout the season, and for this reason is also much used for Lawn Grass Mixtures. It is also well adapted for permanent meadows, and it yields large quantities of very nutritious hay, which is well liked by all kinds of stock. It grows well on almost any land, but prefers medium rich or moist land, such as will produce a good crop of corn, and gives the heaviest yields on such land. It grows two to three and one-half feet high. When sown by itself, about 20 to 25 pounds of seed per acre is sufficient.

Lb. 25c, postpaid; 100 lbs. at market price.

Extra Fine Mixed Lawn Grass

(**City Park Mixture.**) The essentials for a fine lawn are: First, a rich, well drained soil; second, careful preparation of the ground, making it as fine and smooth and mellow as possible; third, a wise selection of seeds; fourth, sowing at such a time as to give the young plants a chance to become well established before being subjected to very dry or to very cold weather. However much care is bestowed on the soil and seed, no lawn will be beautiful without frequent mowing and rolling. Too much care cannot be bestowed upon the selection of grasses as some varieties are the most luxuriant in spring, others in summer, others again in autumn, and a combination of the proper sorts is required for a perfect, carpet-like lawn. We have given much thought and made many experiments to secure the best selections, and think our City Park Mixture is the best possible for permanent lawns. It may be planted early in spring, or fall, and should be sown at the rate of 60 to 100 pounds per acre; much more is required than for hay or pasturage. If sown in the spring, sow as early as possible, making the surface very fine and smooth, then raking it over and sowing the seed just before a rain, which, if the surface has just been raked, will cover the seed sufficiently. If the expected rain does not come, cover by rolling with a light roller. If sown in the fall, sow before the autumn rains have ceased, and before very cold weather give the young grass a light dressing of manure. One pound of this mixture is sufficient to sow 200 square feet.

Extra Fine Mixed Lawn Grass, per lb. 50c postpaid; 100 lbs. at market price.

Italian Rye Grass

(*Lolium Italicum.*)

It grows on almost any soil, but thrives best in rich, moist land. Where the ground is favorable, and especially if irrigated, immense crops can be produced, being cut four to five times, and yielding as high as seven to eight tons of dry hay per acre. It is well adapted for pastures, on account of its early growth in spring, and its quick and successive aftergrowth, when closely cropped. It grows two to four feet high, with an abundance of foliage, and is much liked by cattle and stock generally. Sow 20 to 25 pounds of seed to the acre.

Lb. 25c, postpaid; 100 lbs. at market price.

Kentucky Blue Grass

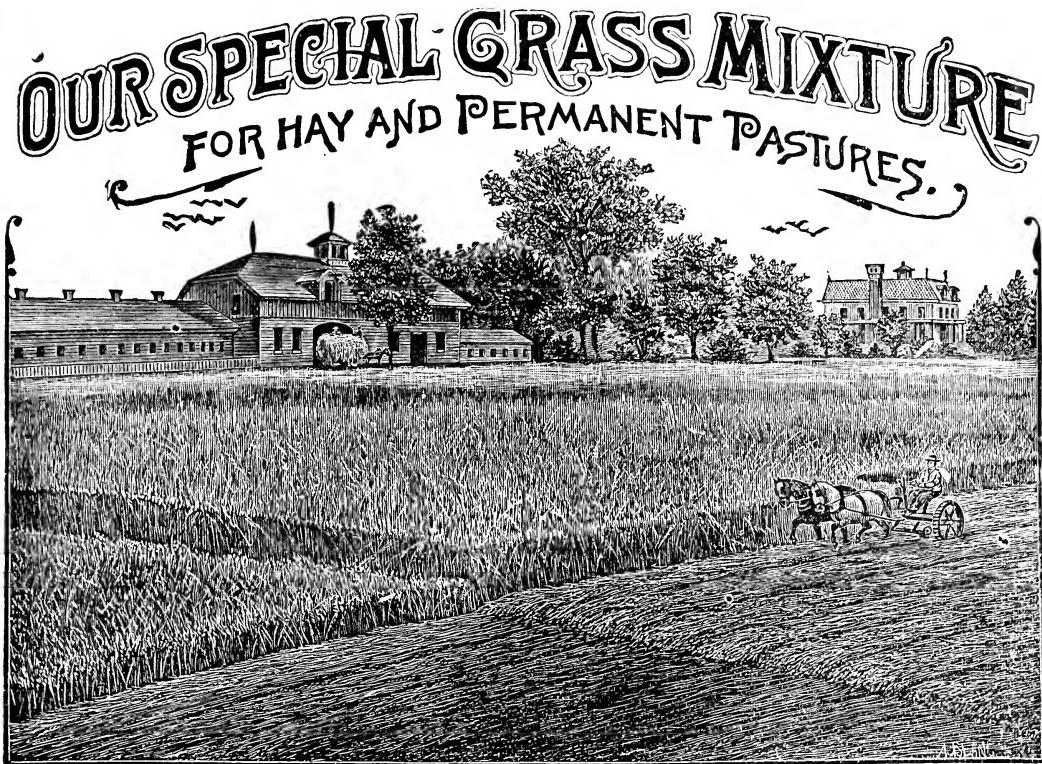
(*Poa Pratensis.*)

The most widely known of all the natural grasses, it does well everywhere, and can be found in almost every part of our broad country. It is suited to any variety of soil, and seems to succeed best on moist, rich land. It requires about two years to become well established, and for this reason should be used only where permanent pastures and meadows are wanted. In conjunction with white clover it forms a splendid lawn; for this purpose use one pound to 200 square feet, or sixty pounds of Blue Grass and six pounds of white clover per acre. If sown by itself for pasturage about thirty pounds per acre will be required. Sow early in the spring or in October or November.

Lb. 50c, postpaid; 100 lbs at market price.



ENGLISH RYE GRASS, OR PERENNIAL RYE GRASS.



Permanent Pastures and Meadows

Since it has come to be an established fact that **Grass is King and the Cow is Queen**, it follows that more cows demand more and better grass and pastures, and how to obtain these is the great question with many farmers.

It is a well known rule of nature that a judiciously selected mixture of several varieties will produce a larger yield than can be obtained if only one variety is sown alone or by itself. When sowing a carefully selected mixture of Grasses and Clover you run less risk than if you had carried all your eggs in one basket, so to speak. Some varieties may live and thrive on your particular piece of land better than others, and these will then have a chance to do their very best. A mixed pasture is earlier, gives a better yield, and holds out better than one sown down with but one kind of Grass. Many varieties sown together occupy the ground more closely, and a larger yield of hay and of better quality, can always be obtained from a mixed meadow. In a great many parts of the country only one or two kinds of grasses are known and mostly sown, and these are Timothy and Clover. While Timothy is a splendid Grass, and Clover the foundation of all successful farming, both are not permanent, and not well adapted for pasturing; are easily affected by drought or frost, thereby making it necessary to re-sow every year or two, a rather expensive method. In our carefully selected Clover-Grass Mixtures several varieties of the natural Grasses are sown together, and these will cover the ground very closely, and make two spears of Grass grow where formerly but one grew; besides, these Clover-Grass Mixtures will stand various climatic and soil conditions better, will last longer or be permanent, and yield heavily or double the quantity of hay that is secured from ordinary fields sown with Timothy and Clover.

Clover Grass Mixtures for Permanent Pastures, Meadows, or for Particular Purposes

We selected them with the greatest care and use only such varieties as are best adapted for different kinds of soil and various purposes. Some varieties are of early and others of late growth, and this is a very important consideration when permanent pastures are wanted and when wanted for mowing, the varieties must be selected so as to ripen nearly at the same time and be of good tall growth, while the low or dwarf growing varieties are better adapted for pasturing.

The prices of our Clover-Grass Mixtures we have always made as low as possible in accordance with the market prices of the seeds, using the best quality of seeds only. Owing to the unusual high prices of the Grass Seeds at the present time, we are obliged to make the prices for our Clover-Grass Mixtures a little higher. It does not cost any more to sow our carefully selected Clover-Grass Mixtures than to sow Clover or Timothy alone, and when permanent results are considered, the Clover-Grass Mixtures are the cheapest by several times.

A.—Clover Grass Mixtures for Permanent Pastures

No. 1—For high and dry ground, light soils.

	Sow Per Acre.
Red Top.....	25 lbs. @ 24c...\$ 6.00
Bromus Inermis.....	—
Meadow Fescue.....	50 lbs. 10.50
English Rye Grass.....	100 lbs. 20.00
Tall Meadow Oat....	
Lucerne.....	
White Clover.....	

No. 2—For high and dry grounds, heavy or clay soils.

	Sow Per Acre.
Meadow Fescue.....	25 lbs. @ 24c...\$ 6.00
Orchard Grass.....	—
English Rye Grass.....	50 lbs. 10.50
Tall Meadow Oat....	
Blue Grass.....	
Italian Rye Grass.....	
Timothy.....	
Alsyke Clover.....	
Red Clover.....	
White Clover.....	

No. 3—For moist ground and rich soils.

	Sow Per Acre.
Blue Grass	20 lbs. @ 22½c. \$ 4.50
Meadow Fescue.....	—
Orchard Grass	50 lbs. 10.50
English Rye Grass.....	
Italian Rye Grass.....	
Timothy.....	
Red Top.....	
Red Clover	100 lbs. 20.00
Alsyke Clover.....	
White Clover	

B.—Clover Grass Mixtures for Particular Purposes

No. 4. We have selected this Clover-Grass Mixture with a view to suit the conditions in the Western and extreme Northwestern States, and for similar conditions elsewhere, and in sections of the country where Timothy or Clover are uncertain and do not succeed well when sown alone, but we include these as we have found that where they are uncertain when sown alone, they are more apt to succeed when sown with other varieties and should they fail, the other grasses take their place, and so an entire failure is avoided. This Clover-Grass Mixture is adapted to sow on land that will produce a crop of wheat, oats, etc., and is selected with a view to produce a crop of hay and pasture afterwards, or can be pastured entirely.

	Sow Per Acre.
Bromus Inermis.....	20 lbs. @ 22½c. \$ 4.50
Meadow Fescue.....	—
Tall Meadow Oat....	
Orchard Grass.....	
Timothy.....	
Blue Grass.....	
Red Top.....	
Alsyke Clover.....	50 lbs. 10.50
White Clover.....	100 lbs. 20.00
Red Clover.....	

No. 5—Crimson Clover-Grass Mixture or Special Renovating Clover-Grass Mixture, or Quick Return Mixture.—We selected and made this up for rapid growth with a view to use for either alternate husbandry or as a catch crop. When sown in early spring, March or April, it will give a full crop of hay in July and pasture for the rest of the year. It can also be sown in fields where the Clover or Grass has mostly been winter killed, or otherwise injured, and where bare spots are in the spring, when it will be ready to cut with the other grass or clover, and a full crop from such field with bare spots can thereby be secured.

	Sow Per Acre.
Crimson Clover.....	15 lbs. @ 20c...\$ 3.00
Italian Rye Grass.....	50 lbs. 9.00
English Rye Grass.....	
Tall Meadow Oat....	
Timothy.....	
Red Clover.....	100 lbs. 17.50

C.—Clover Grass Mixtures for Particular Purposes

No. 6—Dairy Farmers' or Orchard Clover-Grass Mixture. We have selected only the earliest, hardiest, best and quickest growing varieties for this Clover-Grass Mixture. Dairy farmers want to cut a crop of hay very early and have pasture for the rest of the season, or make two crops of hay in a season; and this especially selected Clover-Grass Mixture is admirably adapted for this purpose. It is suited for good or medium soils, which will produce a good crop of corn or wheat, and can be sown anywhere in any part of the country.

	Sow Per Acre.
Orchard Grass.....	20 lbs. @ 22½c. \$ 4.50
Tall Meadow Oat....	
English Rye Grass.....	
Italian Rye Grass.....	
Meadow Fescue.....	
Red Clover.....	50 lbs. 10.50
Alsyke Clover.....	100 lbs. 20.00
Timothy.....	

When used for sowing in fields where there is some Grass or Clover already, the quantity to be sown per acre must be according to the stand of Grass or Clover. Usually five to ten pounds per acre is sufficient.

No. 7—This is our Special Alfalfa, or Lucerne Clover-Grass Mixture, and consists mainly of Alfalfa, Bromus Inermis and such varieties of grass as will stand drought and flourish on poor soils and give larger yields in the driest summers, after once being established. The quantity required per acre is 15 pounds. 15 lbs. \$3.00; 50 lbs. \$9.00; 100 lbs. \$17.50.

ABOVE PRICES F. O. B. SALT LAKE CITY.
PURCHASER PAYS TRANSPORTATION CHARGES.

Miscellaneous Farm Seeds

Prices on all grass seeds subject to change without notice. Write for special prices on quantities.

German, or Golden Millet

Probably no other plant is so popular and well known as Millet. When drought is cutting the hay crop short, it can be sown to make up the shortage. Requires a dry, light, rich soil and grows three to five feet high. The heads are closely condensed, though the spikes are very numerous with a fine bulk of stock and leaves, and is excellent for forage. The seeds are contained in rough, bristly sheaths and are round, golden yellow and beautiful in appearance. For hay, sow broadcast at from twenty-five to thirty pounds to the acre, from May 1st to August 1st. For grain, sow in drills, about fifteen pounds to the acre, and not later than June 20th. **Lb. 20c. postpaid; 100 lbs. at market price.**

Rape, Dwarf Essex

(For Sowing.) There is only one "best" variety of Rape, and that is the Dwarf Essex. **There is no plant that will give as heavy a yield of forage at such a small cost as this.** It is especially valuable for green manuring and pasture. When fed off by sheep it will probably do more to restore and make profitable exhausted soils than any other plant. It is a pasture plant which may be eaten off by any kind of live stock, and there is no other plant as valuable for fattening sheep or swine as Rape. It can either be sown broadcast or in drills, and by itself or with some other crop. When rape is sown broadcast, 5 to 6 pounds of seed per acre will be sufficient. When sown in rows or drills, say 30 inches apart, and cultivated, 2 to 3 lbs. of seed per acre is enough. A good crop will furnish at least 12 tons of green food per acre, which has nearly double the nutritive or feeding value of Clover. Dwarf Essex Rape will grow on almost any soil where wheat, oats, or corn will grow. It thrives best on low, moist soils, rich in vegetable matter. Slough lands are splendid for growing it. Beware of the worthless annual variety that is often sold, and which is not only worthless for forage, but once planted is liable to become a pernicious weed. Biennial. **Lb. 20c. postpaid; 100 lbs. at market price.**

Barley

Barley succeeds best on rich lands, more sandy and lighter than those adapted to wheat. It is sown in the spring and can be grown farther north than any other grain. Unless intended for seed it should be cut before fully ripe as it is then heavier, of better quality, and less liable to shell. Use about two and one-half bushels per acre. **White Club \$2.50 per 100 lbs.; Utah Blue, \$2.25 per 100 lbs.** For larger lots, write for prices.

Sugar Cane, Early Amber

This variety is successfully grown in our extreme Northern latitudes. It may be planted as late as the 15th of June, and will be ripe enough for manufacture in September. We know of no earlier variety. It is useless to plant Cane seed before the weather is warm in the spring. Five or six pounds are required per acre. **Lb. 20c. postpaid; 100 lbs. at market price.**

White Kaffir Corn

It grows from four to five feet high, making a straight, upright growth. It has a stalky stem with enormous wide leaves. The stalks keep green and are brittle and juicy, not hardening like other varieties of sorghum, making excellent fodder, either green or dried, which is highly relished by all kinds of stock. The seed heads form at the top of each stalk, and as soon as these show the grain well, the joints next below the top send up shoots which yield the second seed heads. For the grain sow in rows three feet apart, four or five pounds to the acre. For fodder sow forty to fifty pounds to the acre. **Lb. 15c. postpaid; 100 lbs. at market price.**

Field Peas

These are very valuable for fattening stock, and can also be grown for soiling purposes, but are of greater value for fodder when fed as ground feed, or the vines can be fed for hay, which is of great nutritive value for dairy cows and hogs. They are equal to corn and six weeks earlier. Field Peas have been grown by dairymen with very satisfactory results, following Winter Rye, which was cut green in June for dairy cows and cattle, then stubble turned under and sowed to mixed Peas and Oats, furnishing a large amount of forage in August, when grass pastures are usually short. The Field Pea does well on any soil adapted to Oats and Spring Wheat. Cut and feed green, or, if for hogs alone, can be used as pasture. These peas should not be grown on very rich soil, as they will run to vine instead of pod, unless grown for renovating purposes. As a fertilizer they come next to clover, to be ploughed under when they commence to blossom. Can be sown separately in drills or broadcast, 100 to 120 lbs. to the acre; or with Oats, 90 lbs. of Peas and 50 lbs. of Oats to the acre. **Lb. 15c. postpaid; 100 lbs. at market price.**

Vetches or Tares

Spring (Vicia Sativa). A perennial pea-like plant grown as an annual in the north. Desirable as a forage plant, and valuable as a cover-crop for orchards. Culture same as for field peas. Sow two bushels per acre. **Lb. 25c. postpaid; for larger lots write for prices.**

Oats, Silver Mine

We consider this one of the best main crop varieties. Ever since it was introduced it has taken the lead, not only in the quality but also as the heaviest yielding Oat, producing as much as 174 bushels from one bushel of seed sown. They are not like most other Oats, which, when you put them on good rich ground, they lodge, and sometimes the whole crop is lost, but on account of their long stiff straw, will stand up erect and produce a heavy crop of grain. Sow about 75 pounds to the acre. **\$2.50 per 100 lbs.**

Sunflower, Mammoth Russian

Everyone who keeps poultry should use Sunflower seed liberally for feeding, as there is nothing more wholesome and nutritious, or which keeps hens in better condition for laying. Sow the seed as soon as the ground is fit for corn, in rows five feet apart and ten inches apart in the row. Cultivate same as corn. When the seed is ripe and hard, cut off the heads and pile loosely in a rail pen having a solid floor, or in a corn crib. After curing sufficiently so that they will thresh easily, fall out or run through a threshing machine. This variety will yield 900 to 1,200 pounds of seed per acre. Sow about eight pounds to the acre. **Lb. 20c. postpaid; 100 lbs. at market price.**

Poultry Supplies

STRICTLY CASH WITH ORDER

If wanted by mail add 16c per pound, except where quoted postpaid;
by express or freight at purchaser's expense.

Write for special prices on quantities.

Cyphers Fire-Proofed Insurable Incubators and Brooders for 1912

We offer customers an extraordinary improvement in Incubators and Brooders. It is the talk of poultry raisers that Cyphers Incubator Company of Buffalo, N. Y., have succeeded in perfecting such an advanced line of fire-proofed incubators and Brooders that the National Board of Fire Underwriters has given them a special preference; has recognized them as superior fire-proofed machines; and in proof thereof has granted the Cyphers Company the right to affix to every inspected machine a metal label, signifying that the machine comes up to their requirements and have therefore been passed by them.

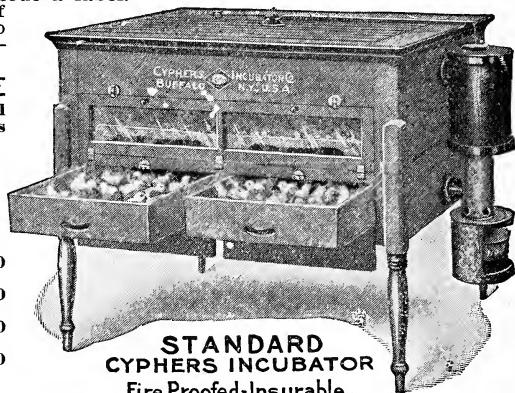
In future, therefore, our customers who buy Standard Cyphers Machines will find the label affixed to their machines. There is no other way to prove that an Incubator or Brooder is fire-proofed. Therefore, don't buy an Incubator without a label.

Buy the Incubator that has stood the test of hatching year after year and is acknowledged to be the best by the most successful poultrymen—those who have made money in the business.

Cyphers Incubators are used by more government experiment stations; large practical poultry plants; leading fanciers and exhibitors, and large successful duck farms than all other makes combined.

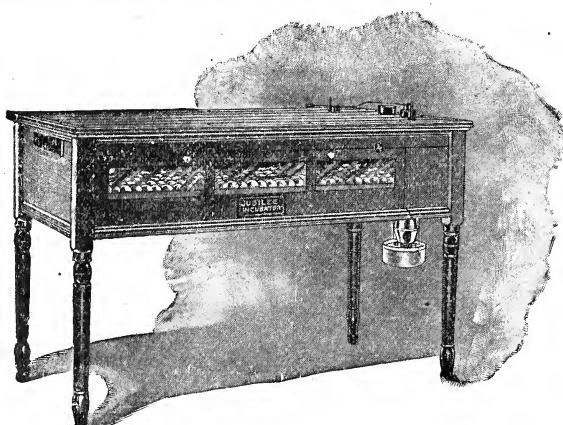
SIZES AND PRICES.

No. 0—Holds 70 Eggs.....	\$18.00
No. 1—Holds 144 Eggs.....	25.00
No. 2—Holds 244 Eggs.....	35.00
No. 3—Holds 390 Eggs.....	41.00



Jubilee Incubators

Wherever the Jubilee Incubators are known they are used, and additional Jubilees are purchased to the exclusion of all others. Every Jubilee sold gives satisfaction—it gives results greater than could be obtained with any other machine—it gives a profit where without it there would be no profit—it gives wonderful results under conditions that would render many machines absolutely worthless. They are made for all climates—they adapt themselves to all conditions—they are perfect "business" machines. They are to hatch eggs, any kind of eggs and in any climate, in any country, whether at sea level or at an altitude of miles. The Jubilee will always give maximum results.

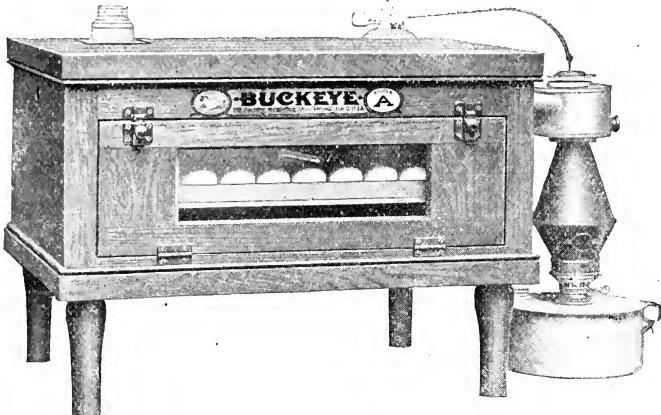


SIZES AND PRICES.

108 egg Jubilee Incubator, 110 lbs..	\$24.00
216-egg Jubilee Incubator, 150 lbs..	35.00
324-egg Jubilee Incubator, 200 lbs..	44.00
504-egg Jubilee Incubator, 260 lbs..	55.00

Buckeye Incubators

For the Small Operator



BUCKEYE STYLE A—60 EGG.

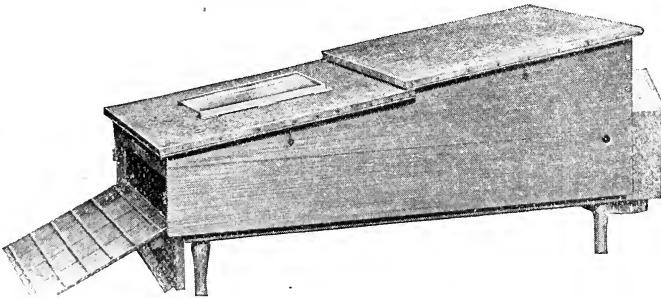
Double Walls Throughout, Complete With Nursery. Guaranteed by the Manufacturers to Hatch a Chick from Every Hatchable Egg.

Equipment.—One tank and boiler, one lamp, one burner with wick, one chimney, one thermometer, one thermometer holder, one complete Buckeye regulator, one egg tester, two egg trays and one nursery tray.

PRICES.

Style A	\$10.00	Weight 60 lbs.	Standard "110"	\$17.50	Weight 125 lbs.
Style C	8.00	Weight 40 lbs.	Standard "220"	27.50	Weight 190 lbs.
Standard "60"	12.00	Weight 85 lbs.			

Buckeye Brooders

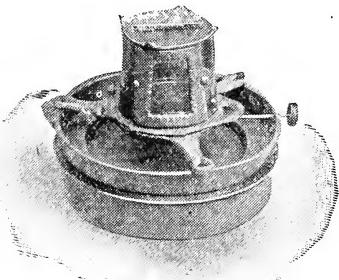


No. 1, Indoor, Heated	\$8.00	No. 6, Indoor, Lampless	\$ 3.00
No. 2, Outdoor.....	\$10.00		

Cyphers Safety Brooder Stove

The safety water pan on the Cyphers Safety Brooder Stove holds nearly a quart of water, and extends out over the entire surface of the oil bowl, thus placing a sheet of cold water between the oil bowl and the flame jets. We have sold thousands of these to persons who build home-made brooders and they give general satisfaction. Height, 7½ in.; greatest width, 10½ in.

Price, each, \$2.00.

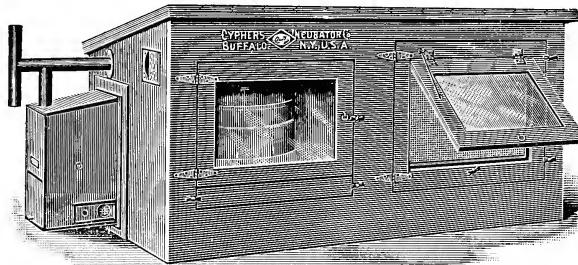


Cyphers Unequalled Fire-Proofed Insurable Combination Brooders and Colony Coops for 1912

Cyphers Unequalled Brooders possess the same advantages over other makes that are possessed by their Incubators, in that they are fire-proofed and insurable. They have been severely tested by the National Board of Fire Underwriters; have come up to their requirements; have therefore been passed by them; and have been **Granted the First Insurance Inspection Label** ever issued on a Brooder. Experienced poultrymen know that it is more important that a brooder should be fire-proof than that an incubator should be. The floor is covered with straw or other litter that easily catches fire. The machine is used outdoors and requires more heat to bring it to the proper temperature—a larger name than an incubator. These conditions made it much more difficult to comply with the Insurance Company's requirements; but after years of effort and experimenting the Cyphers Company has accomplished it; has complied with the new rules; has had its brooders inspected and passed; and in addition **Has Constructed a Better Line of Brooders than has Ever Before Been Placed Upon the Market.** It has often been said by users of Cyphers Brooders that

They Mother the Chicks better than a Hen

Cyphers Brooders are all Self-Regulating and Self-Ventilating. The Outdoor Brooders are also usable as Colony Coops for the growing Chicks. They are easily converted into Colony Coops by simply taking out the hover, which is made removable for that purpose. **This double use of the brooder means a considerable saving of money.**



CYPHERS STYLE B OUTDOOR BROODER.

Fire-Proofed—Insurable.

It makes a safe and comfortable enclosure for the young chicks at night, and saves the buying of a coop for them. These outdoor brooders can also be used indoors, although we have a special brooder for indoor purposes.

A second great advantage possessed by the Cyphers line of Brooders is their self-Regulating feature. It Automatically regulates the heat in the brooder at all times, whereas in brooders without the regulator the heat has to be governed by a continuous watching of the lamp, and turning it up or down whenever more or less heat is required.

For Your Own Sake, for your Own Safety when Buying a Brooder ask—Is it Insurable? Does It Bear the Insurance Label?

SIZES AND PRICES.

Cyphers Fire-Proofed Brooders.

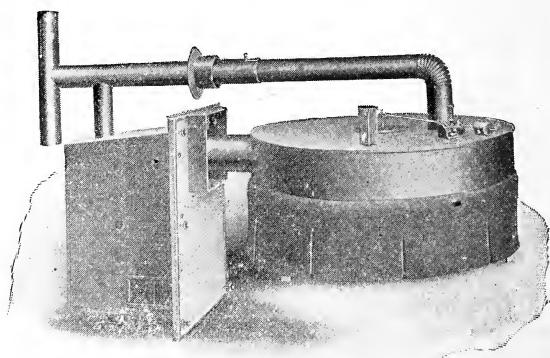
Style "A" Outdoor Brooder, 75 Chicks.....	\$16.00
Style "B" Outdoor Brooder, 100 Chicks.....	20.00
Style "C" Outdoor Brooder, 100 Chicks.....	22.50
Style "D" Indoor Brooder, 75 Chicks.....	14.50

Cyphers Adaptable Hover

Cyphers Adaptable Hover is Self-Ventilating and Self-Regulating—used in all Cyphers Brooders, also intended to be used as a brooding device in colony coops, in portable houses, and in home-made brooders such as goods boxes, piano boxes or organ cases, and can be adapted to other makes of brooders, provided they are 26 inches high and of fairly large dimensions otherwise.

The Adaptable Hover is especially recommended for use in continuous brooding houses, containing pens or chick runways side by side.

The price of Cyphers Adaptable Hover is \$10.00.



Chick Food

A Complete and Scientifically Compounded Food for Young Chicks

Chick Food is a mixture of many different grains and seeds, so proportioned to the needs of the growing chick that it will be fully nourished. By the term "fully nourished" we mean a great deal. Most feeding stuffs contain too much fat-forming and not enough flesh-and-muscle-forming elements; in consequence the chick develops indigestion and diarrhoea, which ultimately means no digestion at all, and the chick soon starves to death. Or, if partially nourished, leg weakness develops and the chick drags out a miserable existence.

In compounding Chick Food, the protein or flesh-and-muscle-forming element, is maintained high, the carbohydrate heat-producing and the fat-forming elements are reduced to their proper proportion, and the ash or mineral elements are in sufficient amount to supply the needs of the rapidly growing bird.

Price: 50-lb. bag \$1.60; 100-lb. bag \$3.00.

Developing Food

Invaluable for Hastening the Growth of Young Stock

Developing food is a special food intended for properly maturing young chicks after they are ready to be weaned from Chick Food, and to carry them along to the age when it is desirable to place before them the larger whole grains. When the chicks are from six to eight weeks old they are able to eat and exhibit a preference for larger particles of grain than found in our Chick Food.

Price: 50-lb. bag \$1.60; 100-lb. bag \$3.00.

Laying Food

A Balanced Ration, Ready Mixed for the Daily Mash

Laying Food is a palatable and highly nutritious balanced ration, ready for making the daily mash. It is ready mixed with every ingredient necessary for layers. Mash foods should be accompanied by a food that will promote exercise, for which purpose we recommend that Scratching Food be scattered in litter.

Price: 50-lb. bag \$1.60; 100-lb. bag \$3.00.

Scratching Food

An Ideal Dry-Grain Mixture—Affords Variety, Promotes Exercise

If we were to feed laying stock entirely on mash, or even on grain food in bulk, without the use of litter, this practice would cause inactivity and soon result in over-fat fowls that would not lay. Exercise is necessary to produce good digestion, maintain health and insure a heavy egg yield. Remember, too, that breeding fowls cannot be kept vigorous and strong by any method that does not require exercise, and plenty of it. In compounding our Scratching Food, it is our aim to produce a properly balanced ration that will aid the mash food in producing healthy birds and a large supply of properly-sized, well-fertilized eggs.

Scratching Food should be scattered in the litter the first thing in the morning and at noon. Late in the afternoon feed all the mash food they will eat up clean.

Price: 50-lb. bag \$1.60; 100-lb. bag \$3.00.

Purity Beef Scraps

Conceded to be the

Greatest Chick Grower and Egg Producer on Earth

Will keep your Fowls Healthy

Beef Scraps, if properly prepared, are a wonderful food for laying hens, and a wonderful chick grower. It requires a remarkable equipment to make good Beef Scraps, and there are but a few factories which turn out a good product. The Purity Brand is sweet, clean and very nutritious, and will keep indefinitely.

Pound, 5c; 50 lbs., \$2.40; 100 lbs., \$4.75.

Purity Blood Meal

If you want winter eggs, **Blood Meal** will bring them—in fact, keeps them busy all the year round.

Makes the plumage bright and glossy and is particularly beneficial during the moulting season.

Blood Meal contains no ground bone or other cheap adulterations of any kind. It has less than five per cent of moisture, and is the only **perfectly dry** poultry food made. Should never be fed without mixing with other food in proportion of 1 to 15 parts of meal or shorts.

Lb. 8c; 50 lbs. \$2.85; 100 lbs. \$5.50.

Purity Meat Meal

This food is made from pure, sweet meat, blood and the liquor from cooking. It is rich in albumen and protein, and is a nitrogenous food of great egg-producing value.

Pound 5c; 50 lbs. \$2.00; 100 lbs. \$3.75.

Purity Ground Bone

Bone is also a good egg producer, but it is not as valuable for this purpose as beef scraps or meat meal, as it does not contain so much protein. The impression prevails in many quarters that the bone must be fresh or green to be of value as a food. This is not the case. The fresh bone contains about 40 per cent water, 12 per cent grease, or 52 per cent of matter which your fowls do not need or care for, and which also taxes the digestive organs unnecessarily.

Our Bone is made from fresh green bones from which the moisture and grease have been taken, leaving nothing but the phosphates, lime and protein. These are the only food properties of bone, green or dry, so when you buy our bone you get it without paying freight on moisture or grease.

Pound 5c; 50 lbs. \$2.00; 100 lbs. \$3.75.

Crushed Oyster Shells

Every pound of Oyster Shells offered by us is dried by a patent hot-air process and not by direct fire, which burns out some of the most desirable qualities.

It is needless for us to enlarge upon the value of Crushed Oyster shells for poultry. Every poultryman realizes their importance as an egg-shell maker and general promoter of good health.

Pound 2½c; 50 lbs. 85c; 100 lbs. \$1.50.

Poultry Grit

It is highly essential that poultry be given a plentiful supply of good, clean, sharp, and lasting Grit. Fowls cannot be healthy if grit is denied them. Our **Grit** is made in three sizes—Fine for Chicks, Medium for Fowls half grown, and Coarse for Grown Fowls, Turkeys, etc.

Put up in burlap sacks. State the size Grit required when ordering. All sizes are the same price and the same in quality.

Pound 2½c; 50 lbs. 85c; 100 lbs. \$1.50.

Alfalfa Meal

A "GREEN" FOOD THAT AIDS DIGESTION AND ASSISTS IN THE ASSIMILATION OF GRAIN FOODS, THEREBY GIVING BETTER RESULTS AT LOWER COST.

The value of alfalfa meal as a portion of the regular diet of fowls can hardly be over-estimated. Its value has long been recognized by poultrymen, and it stands pre-eminent among the grasses as a source of protein, lime and mineral salts in soluble and digestible form; in fact, there is no grass, either green or dry, that approaches it in these particulars. The full feeding value of the grain food is better obtained with the aid of alfalfa. Therefore, it is best to feed it daily. Alfalfa meal insures a larger percentage of fertile eggs, and adds to the lustre of plumage. When to be used with the mash, alfalfa meal is mixed dry with the other foods, then scalded or boiled with them, as the poultryman desires. When fed alone it should be scalded and left in a trough for the fowls to eat at will.

Put up in 100 pound bags, \$1.35 each.

Poultry Charcoal

No poultryman can afford to be without charcoal, and a little of it goes a long way. It aids digestion and promotes the health of the poultry of all ages. Our Charcoal is absolutely pure, and is prepared expressly for poultry. It differs widely from the ordinary commercial charcoal offered to poultrymen. It is different in size, differently screened and packed, and does not carry large quantities of useless dust. It is different in grade and always uniform. Our charcoal is prepared in three sizes: Powdered for use in mash mixtures; medium, or chick size, for small, newly-hatched to half-grown chicks; coarse, for grown fowls.

Put up in 2-lb. paper cartons, 15c each; if postpaid, 50c each. Also packed in 50-lb bags, \$2.00 per bag; \$3.75 per 100 lbs.

Vogeler's Egg Food

FOR ALL VARIETIES OF POULTRY, LAYING FOWLS, YOUNG CHICKS, DUCKS, GEESE AND TURKEYS. WILL MAKE YOUR HENS LAY WHEN EVERYTHING ELSE FAILS. IT KEEPS FOWLS IN BEST CONDITION AND MAKES POULTRY THE MOST PROFITABLE STOCK ON THE FARM.

It is estimated that one-half the chicks and turkeys annually hatched die before reaching maturity. When **Vogeler's Egg Food** is fed according to directions, sick and drooping chicks will never be seen. It supplies all the needed material for forming bone, muscle and feathers, and by its gentle tonic effect strengthens the digestive organs and lays the foundation for vigorous, healthy, and therefore profitable fowls.

Price, 25c per package; postpaid, 60c.

Pratt's Poultry Regulator



• TRADE MARK REGISTERED •

It positively cures and prevents chicken cholera, roup, and all diseases.

It makes young chickens grow quickly and profitably.

It will increase the quantity of eggs.

It will make turkeys, ducks, geese and pigeons thrive.

It will help moulting fowls and make them lay sooner.

Feed it to the worst run-down fowl in your flock; the result will more than please you.

Try it; if not on all your chickens, separate a few, and the astonishing results will make it profitable to use always.

PRICES.

26-oz. package	\$0.25
4-lb. package50
9-lb. package	1.00
12-lb. pail	1.25
25-lb. pail	2.50

Conkey's Laying Tonic

In order for the hen to lay the greatest number of eggs, her health must be in perfect condition and the egg-producing organs kept free from irritation and disease. There have been put upon the market many so-called egg producers which are irritants in themselves, while others are simply frauds, producing no effect whatever, and having no value except, perhaps, as foods for which you are paying ridiculous prices.

Don't confuse this with cheaper preparations, or with those which may have disappointed you. **Conkey's Laying Tonic** will insure strength in cocks, more eggs and more fertile ones from hens, and rapid growth and vigorous life in little chicks. **Conkey's Laying Tonic** should never be fed alone; it is a strong medicine and must be mixed with food as directed.

Prices, 1½-lb. pkg., 25c; 3½-lb. pkg., 50c; 7-lb. pkg., \$1.00; 25-lb. pail, \$3.00.



Conkey's Roup Remedy

CONQUERS ROUP



Roup is the most dreaded and fatal disease of the poultry yard.

The primary cause is a cold, which may be contracted in various ways, such as exposure to cold rains, drafts, sudden changes in temperature, damp houses, etc.

THE SYMPTOMS.

Sneezing, followed by wheezy, difficult breathing. Discharge from the nostrils, which quickly hardens and becomes cheesy-looking; rattling in throat; fever and discoloration of the comb.

Conkey's Roup Remedy is the only preparation that will absolutely and positively cure Roup in all its forms.

It not only cures, but will prevent colds and roup. It is used successfully on turkeys, and is unequalled for canker in pigeons.

Easily Administered. Simply put it in the drinking water and the fowl takes its own medicine.

One 50c package makes 25 gallons of medicine; \$1.00 package, 75 gallons of medicine. Sent postpaid.

Conkey's Cholera Remedy

Chicken cholera is much the same as the disease that attacks the human. It usually comes from the drinking of stagnant and foul water, and it can be brought into a flock by a bird already contaminated.

Conkey's Cholera Remedy is given in the drinking water, and one package will make 15 gallons of medicine. It is almost tasteless and has a cooling effect on the hot and inflamed membranes, and quickly reduces the fever throughout the bird's system. It is not only a specific for cholera, but will relieve indigestion, constipation and diarrhoea.

Price, 50c per box; if postpaid, 55c.

Conkey's Head Lice Ointment

Thousands of little chicks are killed each year by head lice—the largest blood-sucking louse that infests poultry. Head lice cause more loss of chicks than all other causes combined, both directly and by weakening the chick's health and affording opportunity for other troubles. Conkey's Head Lice Ointment is a carefully prepared, non-poisonous article with an agreeable odor, and is instant death to the murderous lice while absolutely harmless to the little chicks. It is unexcelled for killing lice on little children. There is no practical way of killing head lice except with an application of ointment, and this is the best manufactured. It will pay for itself in saving one chick.

Price, 15c postpaid.

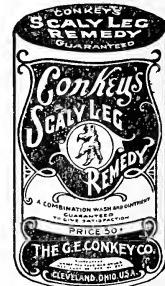
Conkey's Scaly Leg Remedy

Scaly Leg is a parasite disease—the parasites burrowing under the scales of the legs and feet. It is not fatal, but it ruins the appearance of the birds and also saps their vitality and usefulness. This remedy, which is a combination wash and ointment, comes in one package and is guaranteed to cure. It is also excellent as a dressing for the feet and legs of show birds, increasing their "point" value, and putting them in the very best possible condition as prize winners.

Prices, 50c, or 55c, postpaid.

Conkey's White Diarrhoea Remedy

This is one of the greatest aids to the poultryman of any known remedy put out. From 60 to 75 per cent of chicks attacked died from this disease before this remedy was discovered, and poultrymen are rejoiced to find that this remedy is saving them. Price, 50c postpaid.



Conkey's Fly Knocker—The animal's friend

Scientists have actually proved that many infectious and dangerous diseases are communicated by flies and other insects. They are the winged chariots which carry the germs and enable them to infect man, beast and fowl. Not only do they spread the germs, but they are a menace and an annoyance to the peace and health of your stock. From the time that the flies first put in an appearance in the spring until late in the fall, they worry and torment the stock, keeping them irritated and causing them to lose flesh, which is replaced only after loss of time and much extra feeding.

Positively kills every fly it hits and keeps others from alighting on your horses or cows. It clears your stock of the pests and promotes their comfort and usefulness. It will rid your stables of flies and will give the tails a rest. It is positively harmless and will not taint the milk. If used on stock in summer it will prevent lice and grub in the winter. Sprayed on your horses before going for a drive, it will keep the flies away and prevent the fretting so wearing to a nervous animal. One ounce of the liquid will spray two animals. It is especially valuable to farmers, dairy-men, stablemen and horse shoers. Once tried, you will not be without it.

One qt. 50c; ½ gal. 75c; 1 gal. \$1.25. (Cannot be sent by mail.)



Vogeler's Lice Killer

Vogeler's Lice Killer is a liquid preparation for destroying insects on chickens, hogs and other stock. It was especially designed for killing lice and mites on chickens and hogs without the necessity of handling, dipping, dusting or greasing the fowls or animals.

It is strong, very strong, and in its strength is its great value, its economy of labor and thoroughness of results. It is perfectly safe to use as directed, but must be used with caution about young chicks, and must not be applied direct to the bodies of fowls or animals.

Prices: By express or freight, 1 qt. can, \$35c; $\frac{1}{2}$ -gal. can, 60c; 1 gal. can, \$1.00; 5-gal. wood jacket can, \$4.00.

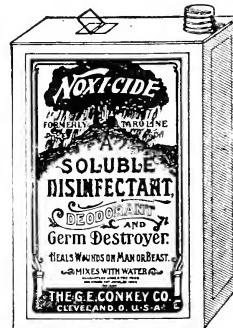
A handy, convenient and economical way to apply Vogeler's Lice Killer is by using the Aspinwall Sprayer. It is strong, durable and the best pump on the market for the price.

Conkey's Nox-i-cide

This is the poultryman's best friend. The majority of dangerous poultry diseases may be traced to the presence of germs which thrive in filth and uncleanliness. **Conkey's Nox-i-cide** is a soluble disinfectant, deodorant and germ destroyer. It mixes with water, in correct proportion for using, one gallon making 101 gallons of ready-to-use liquid. It is the cheapest and most effective article of its kind ever put out. For poultry it is an unexcelled article for cleaning and purifying the houses, runs, brooders, founts and utensils. For household use it is of wonderful value in almost every department. It is unequalled for the sick room, and for purifying everything about the house, barns and outhouses.

It is excellent for all live stock and is a high-grade sheep dip. It cures cuts, galls, scratches, thrush, cracks, fissures, etc. It is an ideal stable disinfectant as it removes odors, prevents flies from breeding, and sweetens and purifies everything it touches. It is excellent for the kennels. It cures eczema and skin diseases generally even for humanity. There is hardly a place in all domestic economy where **Nox-i-cide** will ever be dispensed with after it has once been tried.

Prices: 1 pt. 35c; 1 qt. 60c. By Express or Freight only.



Zenoleum

A Carbolic, Cresol, Coal-Tar Preparation. A disinfectant that won't poison, won't explode, won't burn. Destroys lice and mites and prevents the spreading of infectious diseases. Use Zenoleum in the incubator and get hen-hatched conditions. Dip the eggs in Zenoleum and prevent white diarrhoea. The biggest breeders in the world have adopted Zenoleum for these purposes and recommend its use to **You**.

8-oz. can, 25c; qt. can, 50c; $\frac{1}{2}$ gal. can, 90c; 1 gal. can, \$1.50.

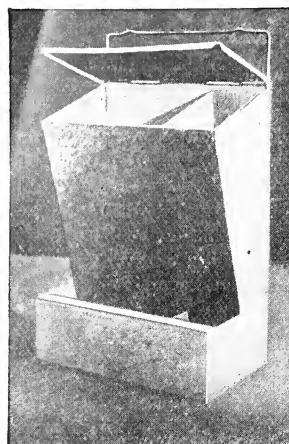
(Sent only by express or freight.)

Lice Powder

This Lice Dust or Powder is especially compounded for this purpose. It is composed of especially selected ingredients ground to a very fine dust, so that when applied it comes in contact with every portion of the skin to which it is applied, and instantly chokes and kills the lice.

Lice Powder is put up in pasteboard cartons.

Price, 25c per package. By mail, 50c.



Dry Food Hopper

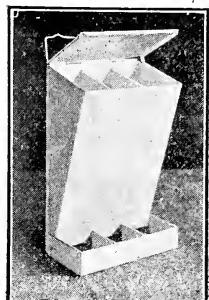
Dry feeding has become very popular. It has proved to be a satisfactory, economical and labor-saving method of feeding poultry. This hopper is well made of heavy galvanized iron and with ordinary care should last a lifetime. Superior in every way to a wooden hopper. The wooden hopper attracts dampness and mold, which are always undesirable. This Hopper has a hinged lid which protects the grain supply from dust, and being made of metal it affords freedom from dampness and mold. For dry feeding both hard grain mixtures and dry mash, this hopper is superior. These hoppers have two compartments, one for dry mash or mixed grain, holding about six quarts, the other for either grain or beef scrap, holding about three quarts. We recommend this hopper for all who desire to practice dry feeding or who wish to give the birds a chance to balance their own ration. Top of box has sharp pitch or angle, so birds cannot roost on it. Quality considered, the price is very low.

Price, each, 80c.

Grit and Shell Box

No poultryman can really afford to be without this handy labor-saving device. This box or hopper is well made of heavy galvanized iron and will last for years with reasonable care. It has three compartments, and may be used for feeding grit, oyster shell and charcoal; or grit, shell and granulated bone. It feeds automatically and prevents waste. With this self-feeding box hung up on the side walls of the pen, the birds can help themselves at all times and the supply is kept clean. Top has hinged lid and slants to prevent birds roosting on box.

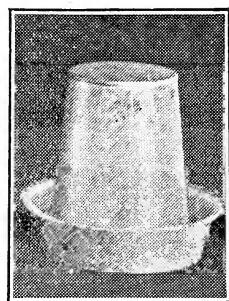
Price, each 60c.



Galvanized Iron Drinking Fountains

The water supply is often the medium that conveys contagious disease from one fowl to another. In the drinking vessel it comes in contact with and is infected by the discharge from the nostrils of rousy fowls and those having canker and chicken pox, and other head and throat diseases. It is essential, therefore, that the drinking fountain shall be not only a suitable vessel for holding water, but it should also be easy to clean, and of such material and construction that it may be easily kept clean. These fountains are made of heavy galvanized iron, all seams being carefully turned and soldered. They are so formed that in freezing weather the pressure of ice inside will not split the seams. Prices:

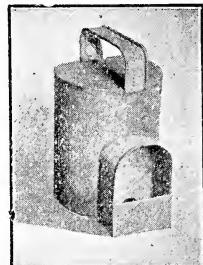
Small size, 1-quart (for chicks)	25 cents
Medium size, 2-quart (for growing chicks or ducklings)	35 cents
Larze size, 3½ quarts (for fowls)	45 cents
Special duck size, 2 gallons	65 cents



Wall Fountains

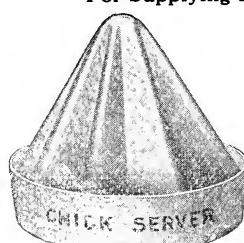
These fountains are something new and extra serviceable in the way of poultry fountains. One side of the back is flattened so that it can be hung on the wall of a building, or against an upright post or board at any height. A galvanized iron hood projects over the water trough and protects the water from becoming soiled. These fountains are equally serviceable for young chicks or adult fowls and are especially useful for pigeons. They are made of the best galvanized iron and guaranteed to last many years with proper treatment.

Prices: One-quart size, 35c each; one-gallon size, 60c each.



Sanitary Chick Servers

For Supplying Food and Water to Small Chicks. Many Thousands of Them in Use.



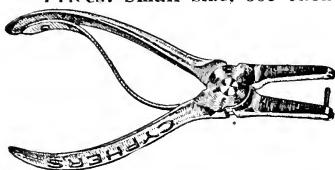
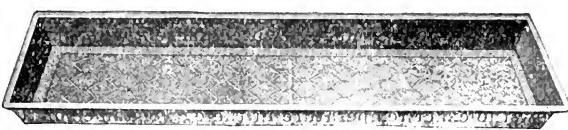
The type of Sanitary Chick Server illustrated herewith is used extensively by experienced, successful poultrymen as a food and water dish for little chickens on range and confined in brooders, brooding houses, etc. This Server consists of two parts and is separable, making it convenient in use, easy to clean and therefore sanitary. We recommend this Chick Server for use in feeding small chicks, also in supplying water for them to drink.

One size only, 35c each.

Feed Trough

This Feed Trough is a most desirable appliance for use on the poultry plant. Easy to fill; economizing labor; saving time. Made in three sizes suitable for all ages and all kinds of poultry. Small size, $5\frac{1}{2} \times 24$ inches, 1 inch deep, with rounded edge; suitable for feeding or watering small chicks. Medium size, 6×24 inches, 2 inches deep, with smooth lip edge; suitable for feeding or watering growing chicks or ducklings. Large size, $8\frac{1}{2} \times 29\frac{1}{2}$ inches, 3 inches deep, for feeding and watering adult poultry of all kinds. The trough consists of a heavy galvanized iron pan with an adjustable wire netting top. This top protects the grain mixture, or dry mash, from waste and is more effective than any other similar feed trough. We highly recommend them for feeding poultry of all sizes and ages. Being low and flat a large number of birds can feed at one time without crowding. The price is very low, considering capacity and value. Once used you will prefer them to all other feeding troughs offered.

Prices: Small size, 60c each; medium size, 85c each; large size, \$1.00 each.



Cyphers Perfect Marker

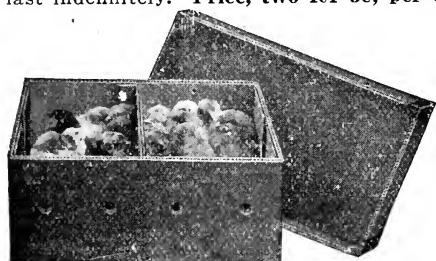
This punch is so simple in construction that it will appeal to all as a practical tool. Cyphers Perfect Marker is made especially for the work of marking chicks. It makes a good, clean cut, and does not mutilate the web, as do many cheaper punches. These punches are made expressly for us, and we guarantee them to meet all requirements. **Price, each, 50c.**

Standard Egg Tester

A standard tester is shipped free with each machine. This tester gives a strong, reflected light, and when used in a dark room illuminates the interior of the egg sufficiently for practical work. **Price 25c; by mail, 35c.**

Porcelain Nest Eggs

This article does not need any description, as it is well known to all who keep poultry. They are made of a good quality of flint glass and will last indefinitely. **Price, two for 5c; per dozen, 25c.**



Sefton Live Chick Box

Made from the same grade of corrugated paper as the Eyrie Coop body and the Egg Boxes. For shipment it is folded flat, but can be easily set up and made ready for use. Dead air cells in the paper protect the tender chicks. Made to hold 25, 50 and 100 chicks. Each box is divided into compartments that will hold about 25 chicks. As this box is so much lighter than a wood box in many instances the amount saved in express charges alone will pay for the box. There is money in shipping live chicks. Get in a shipment of our Live Chick Boxes, start your incubator and keep it running.

25-chick size, 20c each; 50-chick size, 30c each; 100-chick size, 50c each.

Paper Egg Boxes

Just the Thing for Your Family Egg Trade.

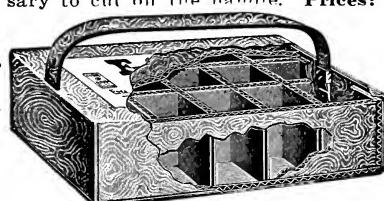
These boxes are intended for use in delivering eggs to private families. They are exceedingly neat in appearance and go a great way toward making satisfied customers. They ship "knocked down," can easily be set up and sent by express or freight at very low rates. The customer, after using contents, can take them apart and return them.

Prices: 1 doz. size, per doz. 20c; per 100 \$1.15; per 1,000 \$10.00. By mail, postpaid, 45c per dozen.



Eyrie Egg Boxes

"The Eyrie Egg Box" is made for the purpose of shipping settings of high class eggs, and is made from jute board, lined throughout and partitioned with double-faced corrugated paper, which incloses the eggs in a dead air space, effectually protecting them from sudden changes of temperature. The cushioning effect of corrugated paper affords ample protection, and the partitions allow of a change in position of the germ. The handle is a very important feature. It serves to prevent the express agent from taking hold of the body of the box and pitching it around, since he will naturally take hold of the handle and pass it on. It further prevents the placing of other express packages on top of the box. The automatic locking of the box is accomplished by the insertion of a notched handle in two holes at the ends of the box, the tongue on the handle slipping into the metal catch, which holds it firmly. To open the box it is necessary to cut off the handle. **Prices: No. 1 (holds 15 eggs), 20c; No. 2 (holds 30 eggs), 30c.**



Pettey's Poultry Punch

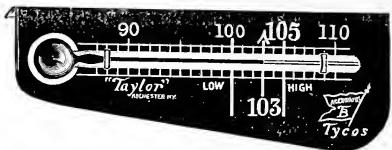
All steel.
Nickel plated.
Punches clean.
Hole is right size.
Will not bruise the
foot.
25c each.



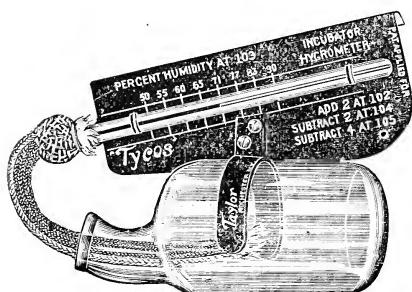
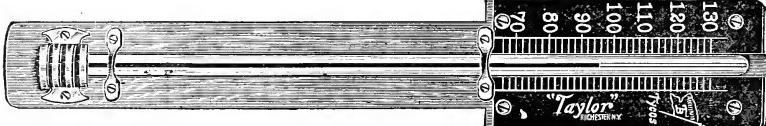
High Grade Tested Thermometers

The best incubator or brooder manufactured is useless unless the thermometer used therein is accurate. Hundreds of hatches in incubators fail because of inferior thermometers, and large numbers of chickens are killed in brooders owing to defective or worthless thermometers. The operator, to be successful, must know the exact temperature in the egg chamber of the incubator, and be sure that the chickens in his brooder have the proper amount of heat. The thermometers here listed are manufactured especially for us, and are thoroughly tested before they are shipped.

Prices: Incubator Thermometers, each, 70c; postpaid, 75. Brooder Thermometers, each 70c, postpaid, 75c.



INCUBATOR THERMOMETER



INCUBATOR HYGROMETER.

Incubator Hygrometers

Millions of chicks die in the shell every year, for the want of proper moisture conditions. The importance of a correct percentage of moisture during incubation has made the Incubator Hygrometer as necessary as the Incubator Thermometer. Neither takes the place of the other, but together they give the practical poultry raiser all the facts required for successfully regulating the heat and moisture of an incubator.

The Incubator Hygrometer is not a regulator of moisture, but in conjunction with the Incubator Thermometer is an indicator of moisture present in the incubator, showing exactly what the conditions are, so that if not correct, they may be made so.

\$1.50 each.
Extra wicks, 10c each; \$1.00 per doz.

Improved Champion Leg Bands

The oldest and most popular Band on the market. This Band is made in one piece, adjustable to fit any fowl. They will stay where you put them. Held by double lock it is impossible for them to lose off. Made of aluminum.

Price, 12, 15c; 25, 30c; 50, 50c; 100, 80c.

Improved Smith Sealed Leg Bands

Smith's Sealed Leg Bands never come off when once fastened on, and can never be taken off without destroying the band. These bands are numbered in lettered series of A1 to A10,000, B1 to B10,000, etc. No duplicate numbers are ever made.

Order by Number.—No. 1 bantams and small Mediterranean females, etc.; No. 2, ordinary Mediterranean and Pit Game females, etc.; No. 3 Mediterranean males, American females, pit game males and French females; No. 4, American males, medium Asiatic females, turkey hens, etc.; No. 5, ordinary large Asiatics and Tom Turks, etc.; No. 6, extra large Asiatics and very large Tom Turks, etc. **Prices: 12, 30c; 25, 50c; 60, \$1.00; 100, \$1.50.** **Sealer for sealing bands, plain, 50c.**



CLIMAX BANDS—The "Stay-On" Kind

These bands have been on the market for years, and have proved a most satisfactory device for marking poultry. They are especially desirable for marking birds with feathered legs, and are neat, simple and easy to put on, and absolutely secure if properly applied.

Rings are made of spring brass and the tags of aluminum. They are numbered only from 1 to 100, except on special order.

Prices: Per doz., 15c; per 25, 30c; per 50, 50c; per 100, 80c.

OPEN PIGEON BANDS

For Pigeons or Small Chicks. Made of aluminum, and can be opened or closed sufficiently to fit any sized pigeon or small chick. Best band on the market to use on little chicks until they are old enough to wear larger bands.

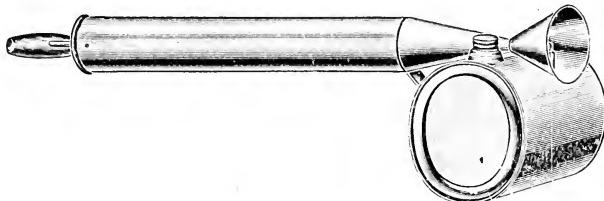
Prices: 12 for 15c; 25 for 25c; 50 for 40c; 100 for 65c.



No. 1 CYCLONE

The Best and most Effective Hand Sprayer on the Market

A NECESSITY IN EVERY HOUSEHOLD. INVALUABLE FOR APPLYING LIQUID LICE KILLER.



Great advantage is derived by the use of these sprayers in exterminating Potato Bugs, Tobacco, Tomato, Cabbage and Currant Worms, and all Plant Insects. Also in killing Lice and Mites in poultry houses.

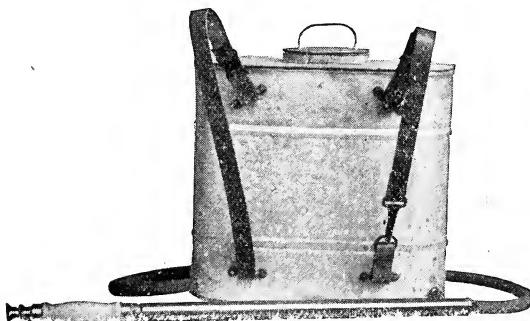
They are used effectively on Horses, Cattle, and Swine, and for spraying Clothes, Carpets, Cigar Wrappers, etc.

Price: 60c each. By mail, 85c postpaid.

LITTLE ASPINWALL SPRAYERS, 50c each. By mail, postpaid, 70c.

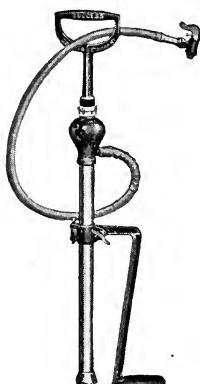
The Standard Spray Pump

"THE BEST AND MOST POWERFUL PIECE OF LOW-PRICED SPRAYING APPARATUS ON THE MARKET TODAY.



The Standard is not a compressed-air Spray Pump. It is a very simple and powerful direct acting force pump, so carefully designed and so accurately fitted that friction is reduced to the minimum. Practically every ounce of force the user exerts on the plunger is available in useful work.

Price, \$5.50; with Knapsack, \$7.50.



The Success Bucket Spray Pump

For the general requirements of spraying fruit trees and vegetables live stock spraying, whitewashing, disinfecting, etc., this pump is unexcelled. All working parts, including ball valves and valve seats are made of brass; the foot-rest is malleable iron.

The brass air chamber is of ample size, affording steady pressure. A three-foot section of hose is attached, same being protected with a coil of brass spring wire where it connects with the pump. The "Bordeaux," the best all around spraying and whitewashing nozzle on the market is furnished without extra cost.

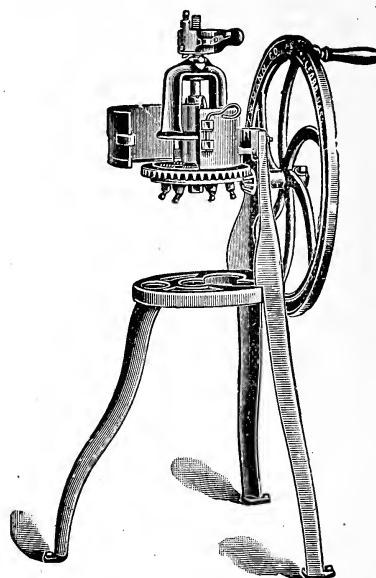
Price, \$5.00.

Mann's Model No. 7

EASIEST TO FILL, EASIEST TO CLEAN, EASIEST TO TURN. WARRANTED AGAINST BREAKAGE, GUARANTEED TO GIVE SATISFACTION. SIMPLEST IN CONSTRUCTION. NEVER GETS OUT OF ORDER.

We confidently recommend the **Mann Bone Cutter**, for we are certain that there is no better bone cutter manufactured. It was F. W. Mann who patented and introduced the **first green-bone cutter**, and he and his machine have done more to popularize the use of green bone in all parts of the world than all other manufacturers of bone-cutters combined. He has steadily improved the cutters bearing his name until today they are practically perfect. His latest and most important addition to what was, apparently, a perfect machine, is the open hopper. This invention obviates the trouble heretofore experienced in cleaning closed-hopped types of bone cutters.

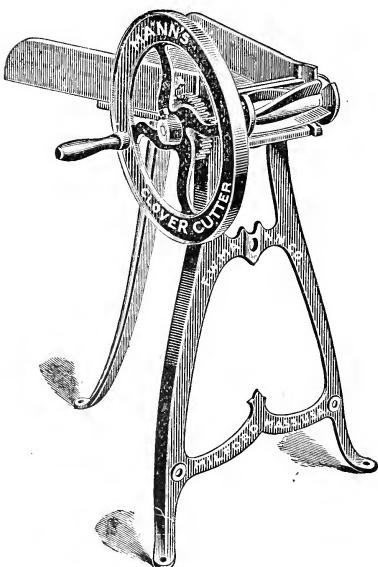
Model No. 7 is equipped with automatic governing spring feed. Large, open-hinged cylinder, giving instant access to all working parts. Six special knives. Gear guard, anti-clog device. Heavy balance wheel, with adjustable handle, besides all the best features of the old-style machines. Weight, 107 pounds. Cylinder, $7\frac{1}{4}$ inches in diameter, $5\frac{1}{4}$ inches deep. Capacity one-half to one pound per minute.



MANN'S BONE CUTTER NO. 7
For Flocks of 100 to 200 Hens.
Price, \$16.00.
Prices on other sizes quoted on request.

Mann's Clover Cutter for Poultry

Made entirely of Iron and Steel, cannot warp or shrink



This machine is designed upon strictly correct mechanical principles, for the particular purpose of making the knife easy to sharpen and simple to adjust and that will not get out of order, something never before accomplished. The importance of these points can be fully realized only when contrasted with other clover cutters, so complicated as to require an expert to either sharpen or adjust them. Another strong feature of Mann's Clover Cutter lies in the fact that it has but one straight knife to be cared for, made of the finest steel, securely fastened to a plate that can be set with positive accuracy, and yet can be removed in an instant. It cuts any kind of hay or clover, either dry or green, and more rapidly than any other. Every revolution of the balance wheel produces twelve cuts, which is four times as fast as the ordinary clover cutter.

It is stoutly built. The workmanship is first class in every particular, and it will last for years without repairs. It is not a toy or a rattletrap, but a thoroughly practical machine offering the greatest value for the least money. Do not buy a clover cutter until you have seen the Mann's.

Price, \$13.50 each.

Reference Tables

Number of Plants or Trees to the Acre at Given Distances

Dis. Apart Inches	No. Plants	Dis. Apart Inches	No. Plants	Dis. Apart Inches	No. Plants	Dis. Apart Feet.	No. Plants
12x 1	522,720	24x24	10,890	36x36	4,840	5x 5	1,743
12x 3	174,240	30x 1	209,088	42x12	12,446	8x 1	5,445
12x12	43,560	30x 6	34,848	42x24	6,223	8x 3	1,815
16x 1	392,040	30x12	17,424	42x36	4,148	8x 8	680
18x 1	348,480	30x16	13,068	48x12	10,890	10x 1	4,356
18x 3	116,160	30x20	10,454	48x18	7,790	10x 6	726
18x12	29,040	30x24	8,712	48x24	5,445	10x10	435
18x18	19,360	30x30	6,970	48x30	4,356	12x 1	3,630
20x 1	313,635	36x 3	58,080	48x36	3,630	12x 5	736
20x20	15,681	36x12	14,520	48x48	2,723	12x12	302
24x 1	261,360	36x18	9,680	60x36	2,901	16x 1	2,722
24x18	15,520	36x24	7,260	60x48	2,178	16x16	170

Quantity of Seed Requisite to produce a Given Number of Plants and Sow an Acre

	Quantity per acre		Quantity per acre
Artichoke, 1 oz. to 500 plants.	6 ozs.	Grass, Sheep's Fescue, Wood Meadow	25-30 lbs.
Asparagus, 1 oz. to 800 plants.	1 lb.	" Italian Rye	20-25 lbs.
Asparagus Roots	1,000-7,250	" English, or Perennial Rye	20-25 lbs.
Barley	100-120 lbs.	" Orchard, Fowl Meadow	25-30 lbs.
Beans, dwarf, 1 lb. to every 100 ft. of drill.	60-90 lbs.	" Red Top, Chaff Seed	25-40 lbs.
Beans, pole, 1 lb. to 100 hills.	30-40 lbs.	" Timothy	10-12 lbs.
Beet, garden, 1 oz. to 100 ft. of drill.	5 lbs.	Hemp, for Seed	5-8 lbs.
Beet, Mangel, 1 oz. to 100 ft. of drill.	5 lbs.	Hemp, for Fibre	40-50 lbs.
Broccoli, 1 oz. to 5,000 plants.	2 ozs.	Horse, Radish, roots.	10,000-15,000
Broom Corn	6-8 lbs.	Kale, 1 oz. to 5,000 plants.	2 ozs.
Brussels Sprouts, 1 oz. to 5,000 plants.	2 ozs.	Kohl Rabi, $\frac{1}{2}$ oz. to 100 ft. of drill	4 lbs.
Buckwheat	25-30 lbs.	Leek, $\frac{1}{2}$ oz. to 100 feet of drill	4 lbs.
Cabbage, 1 oz. to 5,000 plants.	2 ozs.	Lettuce, $\frac{1}{2}$ oz. to 100 ft. of drill	3 lbs.
Carrots, $\frac{1}{2}$ oz. to 10 feet of drill.	$\frac{1}{2}$ lbs.	Martynia, 1 oz. to 100 ft. of drill	5 lbs.
Cauliflower, 1 oz. to 5,000 plants.	$\frac{1}{2}$ ozs.	Melon, Musk, 1 oz. to 100 hills.	1-3 lbs.
Celery, 1 oz. to 15,000 plants.	2 ozs.	Melon, Water, 4 ozs. to 100 hills.	2-4 lbs.
Chicory	2-4 lbs.	Nasturtium, 2 ozs. to 100 feet of drill	15 lbs.
Clover, Alsike and White Dutch.	6-8 lbs.	Oats	60-75 lbs.
" Alfalfa or Lucerne	20-25 lbs.	Okra, 1 oz. to 100 feet of drill	8 lbs.
" Crimson, or Scarlet	12-15 lbs.	Onion Seed, $\frac{1}{2}$ oz. to 100 ft. of drill	4-5 lbs.
" Large Red and Medium.	12-15 lbs.	Onion Seed, for Sets	40-50 lbs.
" Esparsette, or Sainfoin.	30 lbs.	Onion Sets, 1 lb. to 20 ft. of drill	250-300 lbs.
Collards, 1 oz. to 5,000 plants.	2 ozs.	Parsnip, $\frac{1}{2}$ oz. to 100 feet of drill	3 lbs.
Corn, Pop	4-6 lbs.	Parsley	3 lbs.
" Sweet, $\frac{1}{2}$ lb. to 100 hills.	8-10 lbs.	Peas, Garden, 1 lb. to 100 ft. of drill	60-90 lbs.
" Jerusalem, in drills.	4-5 lbs.	Peas, Field	100-120 lbs.
" Jerusalem, for Fodder.	40-50 lbs.	Pepper, 1 oz. to 1,500 plants.	3 ozs.
" Field, in hills.	8-10 lbs.	Potatoes, cut Tubers	400-600 lbs.
" Kaffir, in drills.	4-5 lbs.	Pumpkins, 3 ozs. to 100 hills.	2-4 lbs.
" Kaffir, for Fodder.	40-50 lbs.	Radish, 1 oz. to 100 ft. of drill	10-12 lbs.
Cress, 1 oz. to 100 feet of drill.	12 lbs.	Rye	80-100 lbs.
Cucumber, 1 oz. to 100 hills.	1-3 lbs.	Salsify, 1 oz. to 100 ft. of drill	8 lbs.
Egg Plant, 1 oz. to 2,000 plants.	4 ozs.	Spinage, 1 oz. to 100 ft. of drill	8 lbs.
Endive, $\frac{1}{2}$ oz. to 100 feet of drill.	4 lbs.	Spurry	15 lbs.
Flax, broadcast	30-40 lbs.	Sugar Cane, in drills	5-6 lbs.
Garlic, bulbs, 1 lb. to 100 ft. of drill		Sugar Cane, broadcast	40-50 lbs.
Gourd, 2 oz. to 100 hills.		Savory, Summer, 1 pkt. to 100 ft. of drill	$\frac{3}{8}$ lb.
Grass, Kentucky Blue, for lawns.		Sunflower, Mammoth Russian	2 lbs.
" Kentucky Blue for pasture	25-30 lbs.	Squash, Summer, 4 ozs. to 100 hills	3 lbs.
" Meadow Fescue, or English Blue	20-25 lbs.	Squash, Winter, 8 ozs. to 100 hills	2 lbs.
" Hungarian and Millet	25-30 lbs.	Tomato, 1 oz. to 4,500 plants.	1 oz.
" Mixed Lawn	70-80 lbs.	Tobacco, 1 oz. to 5,000 plants	2 ozs.
" Red Top, fancy, clean, solid	8-10 lbs.	Turnip, 1 oz. to 250 feet of drill	1-3 lbs.
" Bromus Inermis	25-30 lbs.	Vetches	100-120 lbs.
		Wheat	60-80 lbs.

Number of Pounds to the Bushel Legal Weight in Different States

Foreign Names of Vegetables and Herbs

ENGLISH.	GERMAN	FRENCH	SPANISH	ITALIAN	DUTCH
Anise	Anis, Gruner Anis	Anis, Matalahuga.	Aniso, Anacio ...	Anijs.	
Artichoke	Artischoke	Artichaut	Aicachola	Articcioca	Artisjok.
Asparagus	Spargel	Asperge	Esparrago	Sparagio	Asperge
Balm	Citronen-Melisse	Melisse citronella.	Toronji, Citronella	Melissa	Citroen-Millisse.
Basil	Basilikum	Basilic grand	Albaca	Basilico	Basilicum.
Beans	Bohnen	Haricots	Habichuela	Fagioli	Boonen.
Beets	Rube	Betterave	Remolacha	Barbabietola	Bieten.
Borage	Boretsch	Bourrache	Borraja	Boragine	Bernagie.
Brocoli	Spargelkohl	Chou Brocoli	Broculi	Brocoli	Broccoli.
Brussels Sprouts	Rosenkohl	Chou de Bruxelles.	Bretones de	Cavolo di Brus-	Spruitkool.
			Bruselas	selles	
Cabbage	Kopfkohl.	Kraut.	Chou pomme	Col rapello	Cavolo cappuccio.
Cabbage, Savoy	Wirsing	Chou de Milan.	Col de Milan	Cavolo di Milano.	Sluitkool.
Caraway	Feld-Kummel	Cumin des pres.	Comino	Carvi	Karwij.
Carrot	Carotten.	Mohren Carotte	Zanahoria	Carota	Wortelen.
Cauliflower	Blumenkohl	Chou-fleur	Coliflor	Cavoloflore	Bloemkool.
Celery	Sellerie	Celeri	Apio	Sedano	Selderij.
Celeriac	Knoll-Sellerie	Celeri-rave	Apio-nabo	Sedano rapa	Knolselderij.
Chervil	Kerbel	Cerfeuil	Perifollo	Cer oglio	Kervel.
Chicory	Cichorienwurzel	Chicoree sauvage.	Achicoria	Cicoria selvatica.	Suikerij.
Coriander	Coriander	Coriandise	Culantro	Coriandorlo	Koriander.
Corn Salad	Feldsalat	Mache	Canonigos	Valeriana	Veldsla.
Corn	Mais	Mais	Matz	Mais	Mais.
Cress	Garten-Kresse	Cresson aleonis	Mastuerzo	Agretto	Tuinkers.
Cress, Water	Brunnenkresse	Cresson d'fontaine	Berro	Nasturzio	Waterkers.
				acquatico	
Cucumber	Gurken	Concombre	Cohombro	Cetriolo	Komkommer.
Dandelion	Lowenzahn	Pissenlit	Diente de leon	Dente di leone	Molsla.
Dill	Dill	Aneth	Eneldo	Aneto	Dille.
Egg Plant	Eierpflanze	Aubergine	Berengena	Petonziano	Malanzaan plant.
Endive	Endivien	Chicoree Endive	Endivia	Indivia	Andijvie.
Fennel	Fenchel	Fenouil	Hinojo	Finocchio	Venkel.
Garlic	Knoblauch	Ail	Ajo	Aglio	Knoflook.
Horse Radish	Meer Rettig	Raifort Sauvage	Faramago	Rafano	Peperwortel.
Hyssop	Isop	Hyssope	Hisopo	Issopo	Hysop.
Kale	Blatterkohl	Chou-vert	Breton, Berza	Cavolo verde	Poernkool.
Kohlrabi	Knollkohl	Chou-rave	Col rabano	Cavolo rapa	Koolrabi.
Lavender	Lavendel	Lavende	Espliego	Lavenda	Lavendel.
Leek	Porree, Lauch	Poireau	Puerro	Porro	Prei.
Lettuce	Lattich, Kopfsalat	Laitue	Lechuga	Lattuga	Kropsla.
Marjoram	Marjoran	Marjolaine	Mejorana	Maggiorana	Marjolijn.
Melon	Melone	Melon	Melon	Popone	Meloen.
Melon, Water	Wasser-Melone	Melon d'eau	Sandia	Melone d'aqua	Water Meloen.
Mushroom	Schwamm	Champignon	Seta	Fungo pratajolo	Kampernoelle.
Nasturtium	Kapuciner Kress	Capucine	Capuchina	Nasturzio	Capucine-kers.
Okra	Ocher	Gombaud	Gombo	Ocra	
Onion	Swiebel	Ognon	Cebolla	Cipollo	Uien.
Parsley	Petersilie	Persil	Perejil	Prezzemolo	Peterselie.
Parsnip	Pastinake	Panais	Chirivia	Pastinaca	Pinksternakel.
Peas	Erbsen	Pois	Guisante	Pisello	Erwten.
Pepper	Pfeffer	Piment	Pimiento	Peperone	Spaansche Peper.
Pumpkin	Melonens-Kurbiss	Potiron	Calabaza totanera.	Zucca	Pompoen.
Radish	Radies	Radis	Rabanito	Ravaneño	Radjis.
Rhubarb	Rhabarber	Rhubarbe	Rubarbo	Rabarbaro	Rabarber.
Rosemary	Rosmarin	Romarin	Romero	Rosmarino	Bozemarijn.
Rue	Raute	Rue	Ruda		Wijnruit.
Saffron	Safran	Safran	Azafran	Zafferano	Saffraan.
Sage	Salbel	Sauge	Salvia	Salvia	Salie.
Salsify	Haferwurzel	Salsifis	Salsifi blanco	Sasseffrica	Salsefy.
Sorrel	Sauerampfer	Oseille	Acedera	Acetosa	Zuring.
Summer Savory	Bohnenkraut	Sarriette annuelle.	Ajedrea comun	Santoreggia	Boonenkruid.
Spinage	Spinat	Epinard	Espinaca	Spinace	Spinazie.
Squash	Kurbiss	Courge	Calabaza	Zucca	Kalebas.
Tansy	Gemeiner Rainfarm	Tanaisie	Tanacetum	Atanasia	Wormkruid.
Thyme	Thymian	Thym	Tomillo	Timo	Tijm.
Tomato	Liebesapfel	Pomme d'Amour.	Tomate	Pomo d'oro	Tomaat.
Turnip	Weisse-Rübe	Navet	Nabo	Navone	Rapen.
Wormwood	Wermuth	Absinthe	Ajenjo	Assenzio	Alsem.

Field Peas.

By A. D. ELLISON.

The "Field Peas" or better known as "Canadian Field Peas" have been grown in Canada for a long time, and due to the success and adaptability of the plant in that section, as well as in other sections, it has established a great reputation as a forage and legume crop.

The Canadian Field Pea is an important member of the genus *pisum*, and resembles very much the common garden pea. It being a pod bearing plant is classed as one of the leguminous forage crops, which are important for gathering free nitrogen from the air, and when plowed under while green, furnish more food for the soil bacteria, thus restoring more available nitrogen in the soil for other plant growth, through the action of bacteria in the soil and in the nodules on the roots of the leguminous plant, thereby maintaining a more fertile soil.

Adaptation.

The pea thrives best in a cool and wet section with high altitude. It is well adapted to the northern part of the state and need not be sown as early in the spring as in the southern part, however, if grown in the southern part of the state, early spring planting will overcome the shrinkage of the crop due to hot summer weather.

The pea is adapted to most all kinds of soil, but thrives best growing in a moist sandy clay loam. Inoculated soils those which contain the nitrogen fixing bacteria, are better for the producton of forage and also in relation to soil fertility, than those uninoculated.

Alabama Experiment Station found an increase of two hundred percent in yield of various vines grown on inoculated soils compared with that grown on uninoculated soils.

Varieties.

On the market there is very little distinction made as to varieties. Some of the most common varieties are: Golden Vine, Canadian Beauty, Yellow Canada Field, Green Canada Field, White Canada Field, San Luis Valley, Prussian Blue, Kaiser, Bangalia, White Wonder, Early Britain, Mackay and White Marrowfat.

Canadian Experiment Station found Early Britain yielding best with 32.6 bushels of seed and 1.7 tons of straw to the acre.

Ontario Experiment Station recommends on seed production, grown on comparatively rich soil the following varieties: White Wonder Early Britain, New Canadian Beauty, and on the more poorly classed soils, Prussian Blue and Tall White Marrowfat. The varieties most productive during a period of five years at the Canadian Experimental Farms are: Golden Vine, Victoria, Mackay, White Wonder, Prime, Canadian Beauty and Prussian Blue.

Time of Planting.

Early planting is best giving full season for the crop to mature. In a warm section it is best to plant early, soon as soil is sufficiently dry to work. The crop will mature before severe warm weather comes.

Rate of Seeding.

Where early planting is practiced 30 to 40 pounds of seed per acre makes a good covering over the ground and produces good tonnage. However, if the seed is inferior in quality, and weeds are troublesome more seed should be used.

If late planting is practiced 60 to 90 pounds is advisable. This quantity of seed used makes a very good cover crop for orchards where it is to be placed under as green manure.

Canadian Field Peas grown in Utah are grown mostly for its forage and is generally mixed with a cereal, as with oats, thus using about one bushel of peas and one and a half bushels of oats.

How to Plant.

Good success has been obtained by hand sowing or broadcast, after the land has been plowed and harrowed, and covering the seed by discing or harrowing, thus covering the seed to a depth of from 2 to 3 inches, which is advisable.

By using the drill, the oat side of the drill, fair success has been obtained. Two objections to the use of the drill are, that the large seeds are cracked while passing through the drill, and the quantity of seed sown to the acre is not assured, due to the large and small seeds.

Value of Peas.

The pea vines as well as the seed is very nutritious, and has been found to be very profitable when fed to young stock, due to the large amount of protein it contains.

The digestible nutrients in 100

with oats following either wheat or barley. The farmer should grow a crop of peas, if for nothing more than to enrich the soil for a crop of wheat, oats or barley.

Mixed Crop.

At the Utah Experiment Station, during the summer of 1912, experiments were carried on with peas mixed with oats, wheat and barley. The results were in favor of peas and oats, yielding the largest tonnage of forage per acre, with peas and wheat second and peas and barley third.

Feeding Lambs.

Grazing lambs on peas and oats in San Luis Valley in Southern Colorado, has proved a great success. In that section it is known as the "Pea Fed Lamb Industry." One acre of land produces on an average of \$15.00 worth of lamb mutton a year. The seed which was used to grain the crop was worth \$1.00 with very little additional expense.

Wyoming Experiment Station, Bulletin

No. 73.

Field peas grazed off, showed returns approximately equaling the returns from feeding alfalfa and corn, with peas valued at \$8.00 per acre, alfalfa \$5.00 per ton and corn at \$1.00 cwt., although the alfalfa and corn fed lambs gained about one half more than the pea fed lambs, but, during transportation to market about 538 miles, the alfalfa and corn fed lambs shrank 4.2 pounds more than the pea fed lambs. While the carcasses were hanging on the hooks in the market, inspection showed, with the pea fed lambs, considerable less firmness of flesh and fat than did the alfalfa and corn fed lambs.

Much is yet left to be forked out in relation of the field pea to the farm.

pounds of pea seed, thoroughly ripe and of the pea hay are given below:

100 Pounds of Seed.

Dry matter	89.5
Protein	16.8
Carbohydrates and crude fibre.....	51.8
Fat	0.7

Pea Hay.

Dry matter	127.55
Protein	14.37
Carbohydrates and crude fibre.....	42.94
Fat.....	1.44

Pea hay ranks very high as feed for dairy cows, and also makes a very good roughage for wintering stock. Pea seed is so rich in nutritious food products that it is not profitable to be fed alone. The price of the seed has been so high that it has limited to a great extent the growing of the crop in more sections.

When peas and oats are sown together, it is well to be ready to pasture within the sixth or seventh week after planting. Seed is very seldom formed on peas used as hog pastures. A mixture of peas and barley is used to better advantage and profit than growing with oats or wheat for hog pasture.

The Colorado Experiment Station reports, "that when the peas are to be fed to hogs, greater gain is in the number of pounds of pork from an acre of peas can be obtained if the crop is harvested and fed to the hogs from the stack."

Hogs, lambs or cattle may be pastured to good advantage on pea land, after the vines have been raked up and threshed for the seed, they will pick up the scattered seeds and also the pea straw, and digest it with good profit.

Value in Rotation.

Montana Experiment Station shows in rotation, when peas preceeded oats, the land produced a very large crop of oats. A very marked difference in favor of oats following peas, compared

The above is from the UTAH FARMER, issue of April 12, 1913. We would be pleased to send you sample and quote you on Clover Seed.

VOGELER SEED CO., Salt Lake City, Utah.

SWEET CLOVER OR BOKHARA

Melilotus Alba.

For many years sweet clover was looked upon as a noxious weed and one of the first questions asked when buying alfalfa seed was, "Is it free from sweet clover?" In the past few years sweet clover has become very popular, not because the plant itself has undergone any change, but its value has become more generally known and better understood. This is also true of many plants that we consider of no use to mankind, but each one of them is here for a special purpose. Four or five years ago the Wyoming college made a lamb and sheep feeding test and found that sweet clover was superior to alfalfa. About this time the farmers of western and northwestern Nebraska began to use it as a fertilizer. In some parts of Nebraska the soil is more or less sandy and by plowing under the second year's growth they increased their yield of wheat as high as nine to fourteen bushels per acre.

Rasmus Hoff, one of the foremost agriculturists of the state of Idaho, said: "I had ten acres of sweet clover on which I pastured all summer seventeen head of milch cows. Not only did I increase the flow of milk and get a higher percentage of fat, but the cows gained in weight.

The plant is a biennial and bears a close resemblance to alfalfa, but is larger and coarser in every way. It will make an excellent growth on lime lands, on stiffest clays, or on soil so hard and barren that it will no longer sustain other vegetation. It makes only a moderate growth and seldom blooms the first year, but during the second year it grows from four to seven feet high, making stronger and heavier roots than any other forage plant. At the end of the season it matures its seed and dies out, the roots decaying soon after. On account of its strong odor sweet clover is not liked very much by stock at first, but since it starts very early in the spring when other forage is scarce, animals turned into a pasture of it at that time soon acquire a taste for it and eat it readily throughout the remainder of the season. Stock at any time turned in a field of sweet clover will never bloat on it as they do on

other clovers. When grown for hay one crop and sometimes two can be cut the following summer and fall; the following year two and three crops may be cut. Unless cut early, just before it begins to bloom, the stems become hard and woody. Great care is needed in harvesting the hay, as the leaves drop readily from the stems. The best time to handle it is early in the morning when the dew is still on. An excellent hay can be made if taken care of as suggested. While sweet clover hay will not sell as readily on the market it can be used to advantage on the farm. It will not only furnish an excellent pasture in the spring but a heavy crop throughout the growing season. The roots are very long, penetrating the soil to a depth of three to four feet; are quite large, and being fleshy decay more rapidly than alfalfa roots; hence their nitrogen becomes more quickly available for other crops. As they decay at the end of the second season they add a good supply of humus, also leave the soil with minute holes, which act as drains. If cut before it ripens the seed will not spread. However, it will reseed the ground thoroughly if not cut in due time.

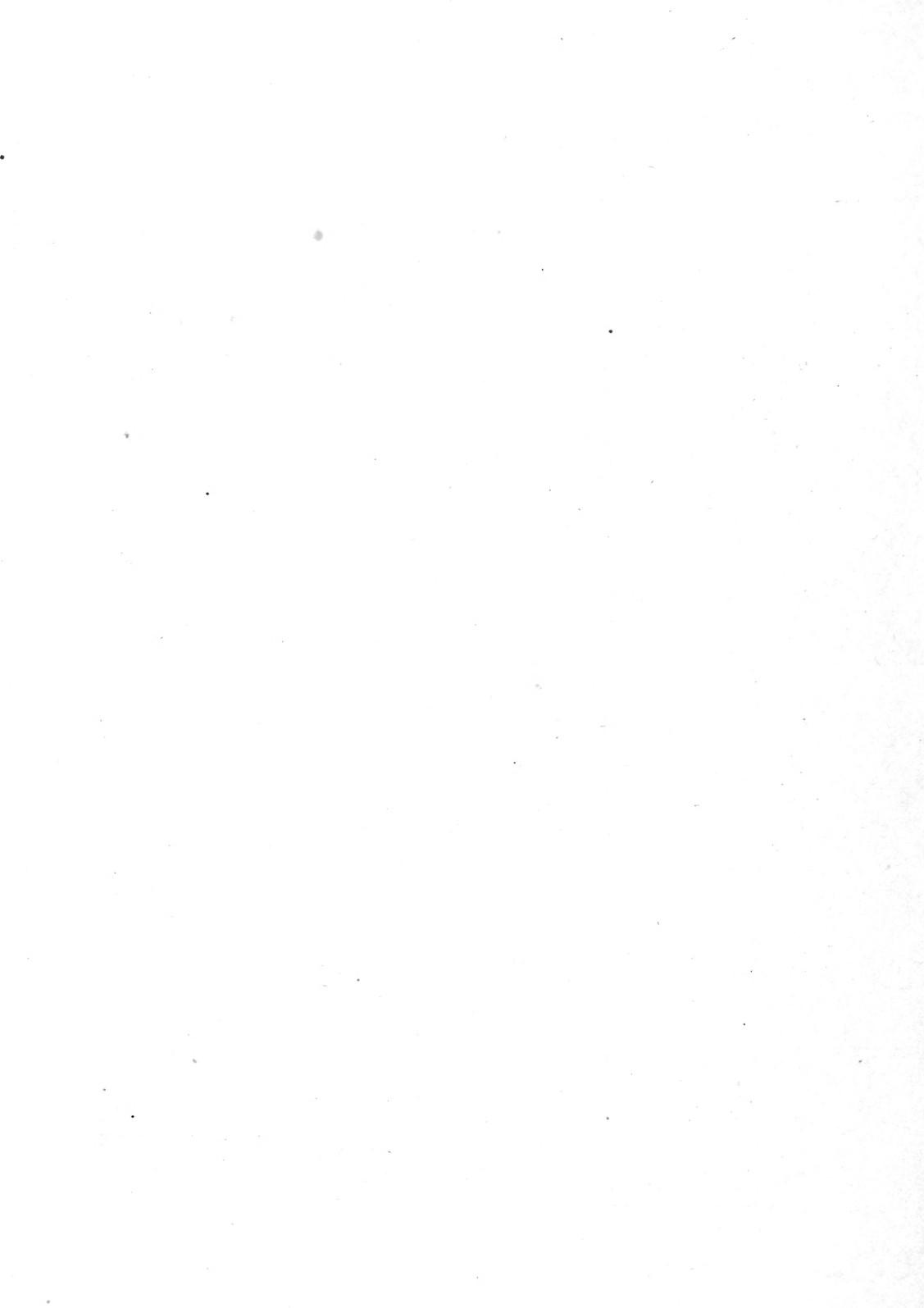
Sow about ten to fifteen pounds per acre. It is best to sow the hulled seed for the unhulled is very slow in germinating. It is difficult to get the seed straight, the plant growing largely in irrigated districts, and is as a rule slightly mixed with alfalfa seed. This, however, is not detrimental.

Sweet clover is a good green manuring crop to use in bringing up the value of old fields, barren or washed places where a large amount of nitrogenous organic matter is desired. It is also one of our best honey plants, as its flowers produce an abundance of nectar. Some beekeepers estimate the value in honey alone of one acre of sweet clover at \$20 to \$25.

I believe I make no mistake in recommending the cultivation of sweet clover for pastures, for hay and for renovating worn out lands and worthless soils.

The above is from the UTAH FARMER, issue of March 15th, 1913. We would be pleased to send you sample and quote you on Clover Seed.

VOGELER SEED CO.,
Salt Lake City, Utah.



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PURITY SEEDS

SALT LAKE CITY,

UTAH.



FIELD PEAS.

Flattering reports as to the feed value of Field Peas have reached us from time to time during the past five years.

Utah, Idaho, Montana and Wyoming are recognized as the leading sheep producing states in the Union, and true they have raised the lambs, but the main profit on these lambs has made many a Colorado farmer independent, by finishing them on Field Peas. It is not because the Colorado farmer is so much brighter than the flockmasters of the above states, but the Colorado farmer has given the subject of sheep feeding a thought and has coined that thought into dollars.

In a recent visit through Colorado, many of the sheep-feeders assured us that the profit has been greater in feeding the sheep than the original flock-master could have made in raising the sheep in the first place.

The peas are a hybrid of many of the hardier varieties. Successful crops are produced at an altitude of 9,000 feet. The plant is very hardy notwithstanding late frost in spring, and growing into late fall. They are splendid growers reaching the length of from four to six feet, the vine continues to blossom as it grows, ripening peas on the lower branches and forming more pods above.

It is claimed and a well known fact that sheep and hogs can be fattened at less cost on peas than on any other article.

Stock-growers everywhere should grow Field Peas.

Time of sowing. Being very hardy the fear of rotting in the ground is not considered. The majority sow in April, although the pea-hay crop can be obtained if sown as late as in July. Early sowing is best, giving full season for matured crop.

Quantity to Sow.

When early sowing is made, 30 to 40 pounds of seed per acre makes a crop that covers the ground and produces good tonnage. If late sowing is made, 60 to 80 lbs. per acre is advisable, as the crop does not get to matured growth. Thick sowing will aid in choking out weeds.

The Utah Stock Pea does not exhaust the soil rapidly like some crops; quite the opposite, the nitrogen taken from the air is stored in the ground, through the roots. The growing crop can be plowed under when but partly matured—just in the milk—and makes an excellent fertilizer. Orchardists are learning this and consider the crop valuable for this purpose alone.

Harvesting.

If wanted as a pea-hay the growth should be at the period when the supply of nutrient in milk is in the vine

just forming the pod, cut and cured like ordinary hay. This makes finest feed for dairy cattle; in fact, lambs, sheep, hogs and cattle relish this hay. If the peas are desired as dry grain, allow crop to mature and handle in shocks, threshing by machine, after thoroughly dry. The dry seed can be ground into a meal, or be feed whole.

Since sheep and hog feeding is now attracting much attention in the west, we beg to quote what is said by a prominent rancher in San Luis Valley:

Feeding Lambs or Hogs.

"Lambs or hogs to be fattened are simply turned in upon the peas and are given plenty of water to drink. The lambs eat the vines for roughness, and pick up the peas for grain. Eating the peas one at a time, as they have to, they eat more slowly and so avoid the danger of over-feeding. There is no waste by this method of feeding. The lambs pick up every spear of hay, and even paw the peas out of the ground, when they have been covered up by the tramping of many hoofs. Lambs will grow fat on ground when hardly a pea can be seen, or a spear of anything growing. The lambs are not fed any grain or any hay. They are shipped to market just as they come from the fields. Some growers reserve a small patch of peas upon which they turn their lambs to top them off, just before shipping, cleaning up this ground with a band of hogs after the lambs have been shipped. Hogs are often fed with lambs on the same patch of peas."

Fattening Hogs with Field Peas.

With hogs, the vines may be raked up and threshed for seed. The hogs will pick up every pea from the ground, eat and digest it. Hogs may be run with lambs or cattle on pea ground to advantage. They eat and like the straw as well as the grain. Pork from peas is equal to that from corn. Threshed field peas pay about the same as a good crop, with very much less express.

Quality of Pea-Fed Mutton

The mutton from lambs and sheep fattened upon peas is of a peculiar good quality. The lean meat is rich in color, the fat white, the flesh firm and of the best flavor. Pea-fed mutton tops the Chicago market when finished in good shape.

Our State Experimental Station has issued literature referring to results of stock feeding with Field Peas that give evidence of no little importance. We advise all stock growers to plant liberally of Field Peas.

The above is from the Deseret Farmer, issue of February 15th, 1908. We would be pleased to send you sample and quote you on Field Peas.

VOGELER SEED CO.,

Salt Lake City, Utah.

In common with other responsible seed houses, we sell our goods subject to the following disclaimer, it being that adopted by the American Seed Trade Association:

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No Goods Sent C. O. D. Our Terms are Cash with All Orders.

HOW TO SEND MONEY

Remittances may be made by P. O. Money Order, Express Money Order, Bank Draft, Express, or by Registered Letter. Every postmaster is required to register any letter on payment of 10 cents extra charge.

When notes are not obtainable, or to make proper change, we accept postage stamps the same as cash. Any denomination will be accepted, but we prefer our customers to send two-cent stamps when convenient, as we use more of these than any other.

Names of persons and places, though familiar to writers, are often puzzling to others, hence please be particular to write your name and address distinctly and in full with each order. We are continually receiving orders where this is neglected, and are obliged to retain them until we hear again from the writer.

DIRECTIONS FOR ORDERING

SEEDS POSTPAID BY MAIL.

At prices quoted in this Catalogue, we send all Vegetable Seeds by the packet, ounce, quarter-pound, pound, pint and quart, and all Flower Seeds by Mail, postage prepaid, without any extra expense to the purchaser. They do not, however, include delivery charges on larger quantities. If you order Vegetable Seeds by the pound, and Beans, Peas and Corn by the pint or quart, to be sent by freight or express, at your expense, you are entitled to deduct 10 cents per pound on Vegetable Seeds, 10 cents per quart on Sweet Corn and 15 cents per quart on Beans and Peas from prices quoted.

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